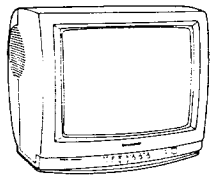
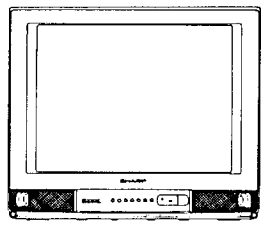
SHARP SERVICE MANUAL
维修手册

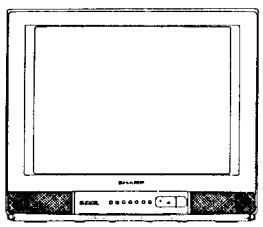
S94E314DCMA//



14D-CMⒶ



21D-CK1Ⓐ



CV-2132CK1Ⓐ

COLOUR TELEVISION
彩色电视机
Chassis No. PAL- Ⓐ

MODELS 型号
14D-CMⒶ
21D-CK1Ⓐ
CV-2132CK1Ⓐ

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

为了用户安全起见(根据一些国家的安全规程的需要)，应将电视机保持于最初的状态，而且只能使用与指定物相同的部件。

The above models are based on models 14D-CM, 21D-CK1 and CV-2132CK1, respectively, and use the PAL-Ⓐ chassis instead of the SP-30 chassis.
The TV sets equipped with the PAL-Ⓐ chassis have the following labels attached near the model label on the rear cabinet. Be sure to confirm these labels.

本型号是分别以型号14D-CM、21D-CK1和CV-2132CK1为基础，并由换替SP-30机芯底盘为PAL-Ⓐ机芯底盘而成的。

使用PAL-Ⓐ机芯底盘的电视机，在后机壳上的型号标签附近贴有下记标签，故请加以确认。

14D-CMⒶ

NOTE FOR SERVICE
Please refer to the Service Manual 14D-CMⒶ when you repair this TV.
TCAUZ 0005 PEZZ

21D-CK1Ⓐ

NOTE FOR SERVICE
Please refer to the Service Manual 21D-CK1Ⓐ when you repair this TV.
TCAUZ 0001 PEZZ

CV-2132CK1Ⓐ

NOTE FOR SERVICE
Please refer to the Service Manual CV-2132CK1Ⓐ when you repair this TV.
TCAUZ 0002 PEZZ

WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis.
To prevent electric shock, do not remove cover. No user — serviceable parts inside. Refer servicing to qualified service personnel.

警　告

该电视机底盘的有些部分通电。当维修本机底盘时，请在电源线插头和电源插座之间使用隔离变压器。
为了防止电击的危险，不要去拆下机盖。在里面的部件，不是使用者所能维修的，必须委托够格的维修人员来进行维修。

SHARP CORPORATION

CONTENTS

Page

- FEATURE 2
- SPECIFICATIONS 3
- IMPORTANT SERVICE NOTES 4
- ADJUSTMENT PRECAUTIONS 5
- SERVICE ADJUSTMENT 9
- TROUBLE SHOOTING TABLE 17
- CHASSIS LAYOUT 25
- PRINTED WIRING BOARD ASSEMBLIES 29
- SOLID STATE DEVICE BASE DIAGRAM 32
- DESCRIPTION OF SCHEMATIC DIAGRAM 33
- SCHEMATIC DIAGRAMS 35
- BLOCK DIAGRAM 45
- REPLACEMENT PARTS LIST
  - ☐ ELECTRICAL PARTS 51
  - ☐ PACKING PARTS 63
  - ☐ SUPPLIED ACCESSORIES 63
  - ☐ CABINET PARTS 64

目 录

页数

- 主要功能 2
- 规格 3
- 重要注意事项 4
- 调整时注意事项 5
- 保养调整 9
- 故障检修表 17
- 机芯底盘电路布置 25
- 印刷电路板的组装件 29
- 固体器件基座图 32
- 电路原理图的说明 33
- 电路原理图 35
- 电路方框图 45
- 更换零件表
  - □ 电路零件 51
  - □ 包装部件 63
  - □ 附件 63
  - □ 机壳零件 64

FEATURE

- ■ One Chip Microprocessor Voltage Synthesizer System
  - 39 Channels Programming System
  - Channel Skip Preset System
  - Last (Channel / Volume / Power / User's Control / Fine Tuning) Memory System
- ■ Full Auto Search Tuning System
- ■ Fine Tuning Adjustable with Remote Control
- ■ Audio Output 6W (PMPO)
- ■ AV Input Terminal
- ■ Blue Back
- ■ Direct Access Remote Control
- ■ **14D-CMⓐ:**
  Triple Sound System
- ■ **14D-CMⓐ and 21D-CK1ⓐ:**
  NTSC 4.43/3.58 MHz (AV Only)
- ■ **21D-CK1ⓐ:**
  CATV (Hyper Band) Ready
- ■ **21D-CK1ⓐ and CV-2132CK1ⓐ:**
  PAL/SECAM Dual System

主要功能

- ■单片微电脑电压合成器系统
  - ●39频道编程系统
  - ●频道跳选设定系统
  - ●最终（频道/音量/电源/用户控制/微调）记忆系统
- ■全自动寻台调谐系统
- ■可用遥控器控制的微调功能
- ■音响功率输出6W(PMPO)
- ■声象(AV)信号输入插孔
- ■蓝色背景功能
- ■遥控器直接存取功能
- ■型号14D-CMⓐ ：
  三声道音响系统
- ■型号14D-CMⓐ 与21D-CK1ⓐ ：
  NTSC4.43/3.58MHz制式兼容（只限声象信号演放）
- ■型号21D-CK1ⓐ ：
  有线闭路电路可并路状态
- ■型号21D-CK1ⓐ 与CV-2132CK1ⓐ ：
  PAL/SECAM制式双机并行系统

SPECIFICATIONS

14D-CMⒶ

Convergence ..... Self Converging System
Focus ..... Quadra-Potential Electrostatic

Sweep Deflection ..... Magnetic
Intermediate Frequencies
Picture IF Frequency ..... 38.9 MHz
Sound IF Carrier Frequency
6.5 MHz ..... 32.4 MHz
6.0 MHz ..... 32.9 MHz
5.5 MHz ..... 33.4 MHz
Colour Sub-Carrier Frequency ..... 34.47 MHz

Power Input ..... 200 — 240 V AC 50/60 Hz
Power Consumption ..... 58 W

Audio Power Output Rating ... 2.8 W (at Max.)
Speaker
Size ..... 10 cm Round Dynamic Type x 1 pc.
Voice Coil Impedance ..... 16 ohms at 400 Hz

Aerial Input Impedance
VHF/UHF ..... 75 ohm Unbalanced
Receiving System ..... CCIR PAL B, G, I
OIRT PAL D/K
NTSC 3.58/4.43 MHz (AV Input Only)
Tuning Ranges
VHF- Channels
E2 (48.25 MHz) thru E12 (224.25 MHz)
C1 (49.75 MHz) thru C12 (216.25 MHz)
UHF- Channels
E21 (471.25 MHz) thru E69 (855.25 MHz)
C13 (471.25 MHz) thru C57 (863.25 MHz)

Dimensions
Width ..... 377.0 mm
Height ..... 322.0 mm
Depth ..... 370.0 mm
Weight (approx.) ..... 9.5 kg
Cabinet Material ..... All Plastics

21D-CK1Ⓐ and CV-2132CK1Ⓐ

Convergence ..... Self Converging System
Focus ..... Quadra-Potential Electrostatic

Sweep Deflection ..... Magnetic
Intermediate Frequencies
Picture IF Frequency ..... 38.9 MHz
Sound IF Carrier Frequency
6.5 MHz ..... 32.4 MHz
6.0 MHz ..... 32.9 MHz
5.5 MHz ..... 33.4 MHz
Colour Sub-Carrier Frequency ..... 34.47 MHz

Power Input ..... 200 — 240 V AC 50/60 Hz
Power Consumption
● 21D-CK1Ⓐ ..... 98 W
● CV-2132CK1Ⓐ ..... 92 W

Audio Power Output Rating
● 21D-CK1Ⓐ ..... 3.1 W + 3.1 W (at Max.)
● CV-2132CK1Ⓐ ..... 3.1 W (at Max.)
Speaker
Size
● 21D-CK1Ⓐ ..... 5 cm x 9 cm x 2 pcs
● CV-2132CK1Ⓐ ..... 5 cm x 9 cm x 1 pc.
Voice Coil Impedance ..... 16 ohms at 400 Hz

Aerial Input Impedance
VHF/UHF ..... 75 ohm Unbalanced
Receiving System ..... SECAM/PAL B, G, D, K
PAL-I
● 21D-CK1Ⓐ
NTSC 3.58/4.43 MHz (AV Input Only)
Tuning Ranges
VHF- Channels
E2 (48.25 MHz) thru E12 (224.25 MHz)
C1 (49.75 MHz) thru C12 (216.25 MHz)
S1 (105.25 MHz) thru S20 (294.25 MHz)
UHF- Channels
E21 (471.25 MHz) thru E69 (855.25 MHz)
C13 (471.25 MHz) thru C57 (863.25 MHz)

Dimensions
Width ..... 542.0 mm
Height ..... 462.0 mm
Depth ..... 470.0 mm
Weight (approx.) ..... 22.0 kg
Cabinet Material ..... All Plastics

Specifications are subject to change without prior notice.

E3

规格

型号14D-CMⒶ

聚焦……自聚焦系统
焦点……平方电位静电焦点

扫描偏转……磁致偏转
中频
图象中频载波频率……38.9MHz
声音中频载波频率
6.5MHz……32.4MHz
6.0MHz……32.9MHz
5.5MHz……33.4MHz
色彩副载波频率…… 34.47MHz

电源…… 交流200～240V、50/60Hz
功率消耗……58W

音响额定输出功率……2.8W（最大）
扬声器
尺寸…… 10cm圆型动态式×1只
音圈阻抗…… 16Ω(400Hz时)

天线输入阻抗
甚高频(VHF)/超高频(UHF)…75Ω非平衡式
接收制式…… CCIR PAL B,G,I制式
OIRT PAL D/K制式
NTSC3.58/4.43MHz制式(只限声象信号演放)
调谐范围
甚高频(VHF)
E2频道(48.25MHz)～E12频道(224.25MHz)
C1频道(49.75MHz)～C12频道(216.25MHz)
超高频(UHF)
E21频道(471.25MHz)～E69频道(855.25MHz)
C13频道(471.25MHz)～C57频道(863.25MHz)

尺寸
宽……377.0mm
高……322.0mm
深……370.0mm
重量（大约）……9.5kg
机壳…… 均由塑料而成

型号21D-CK1Ⓐ 与CV-2132CK1Ⓐ

聚焦……自聚焦系统
焦点……平方电位静电焦点

扫描偏转……磁致偏转
中频
图象中频载波频率……38.9MHz
声音中频载波频率
6.5MHz……32.4MHz
6.0MHz……32.9MHz
5.5MHz……33.4MHz
色彩副载波频率…… 34.47MHz

电源…… 交流200～240V、50/60Hz
功率消耗
● 型号21D-CK1Ⓐ ……98W
● 型号CV-2132CK1Ⓐ …… 92W

音响额定输出功率
● 型号21D-CK1Ⓐ ……3.1W+3.1W（最大）
● 型号CV-2132CK1Ⓐ …… 3.1W（最大）
扬声器
尺寸
● 型号21D-CK1Ⓐ ……5cm×9cm×2只
● 型号CV-2132CK1Ⓐ …… 5cm×9cm×1只
音圈阻抗……16Ω(400Hz时)

天线输入阻抗
甚高频(VHF)/超高频(UHF)…75Ω非平衡式
接收制式……SECAM/PAL B,G,D,K制式
PAL-I制式
● 型号21D-CK1Ⓐ
NTSC3.58/4.43MHz制式(只限声象信号演放)
调谐范围
甚高频(VHF)
E2频道(48.25MHz)～E12频道(224.25MHz)
C1频道(49.75MHz)～C12频道(216.25MHz)
S1频道(105.25MHz)～S20频道(294.25MHz)
超高频(UHF)
E21频道(471.25MHz)～E69频道(855.25MHz)
C13频道(471.25MHz)～C57频道(863.25MHz)

尺寸
宽……542.0mm
高……462.0mm
深……470.0mm
重量（大约）…… 22.0kg
机壳…… 均由塑料而成

上述规格变更之场合，恕不另行通知

C3

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10k ohm Resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. 14D-CMⒶ:
   When repairing the circuit, be sure not to increase the high voltage to more than 25.3 kV, (at beam 0 μA) for the set.
   21D-CK1Ⓐ and CV-2132CK1Ⓐ:
   When repairing the circuit, be sure not to increase the high voltage to more than 29.0 kV, (at beam 0 μA) for the set.
2. 14D-CMⒶ:
   To keep the set in a normal operation, be sure to make it function on 22.0 kV ± 1.5 kV (at beam 800 μA) in the case of the set. The set has been factory — Adjusted to the above-mentioned high voltage.
   21D-CK1Ⓐ and CV-2132CK1Ⓐ:
   To keep the set in a normal operation, be sure to make it function on 24.8 kV ± 1.5 kV (at beam 1100 μA) in the case of the set. The set has been factory — Adjusted to the above-mentioned high voltage.
   ∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3. Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.

保养维修重要注意事项

本电视机的保养只得由专门技术人员进行。

关于高压系统和显象管的保养维修

对高压系统进行保养维修时，先于显象管管座金属部分与第二阳极引线间用绝缘线（诸如测试探针等）串接一只10KΩ的电阻器，以除去残留于高压系统中的静电。（之前，应从电源插座中拔出本机的电源引线插头。）

1. 本电视机显象管为整体内爆防护设计。
2. 为保证本电视机持久使用的安全，显象管的更换必须使用同型号者 。
3. 搬移显象管时，不得倒持其颈部上提。
4. 拆装搬移显象管，必须先用布物等包护荧屏防碎玻璃，并且作完全放电处理后才能进行。

关于X射线

本电视机为无辐射的设计。因此，任何X射线均设计控制于最小绝对极限。然而，在发生故障或保养维修时，过长时间地暴露机芯内部加以放置之场合，便有可能在其近旁产生有害的X射线辐射影响。为此，务请遵循下述预防措施：

1. 型号14D-CMⒶ ：
   维修调整本电视机内部电路时，切勿让其高压超过25.3kV(电子束电流为0μA时）。
   型号21D-CK1与CV-2132CK1Ⓐ ：
   维修调整本电视机内部电路时，切勿让其高压超过29.0kV（电子束电流为0μA时）。
2. 型号14D-CMⒶ ：
   为保证本电视机的正常工作，务必保证其高压为22.0kV ± 1.5kV（电子束电流为800μA时）的工作条件。该工作条件值在本电视机出厂前已经调试验收。
   型号21D-CK1Ⓐ 与CV-2132CK1Ⓐ ：
   为保证本电视机的正常工作，务必保证其高压为24.8kV ± 1.5kV（电子束电流为1100μA时）的工作条件。该工作条件值在本电视机出厂前已经调试验收。
   ※本电视机一旦经维修调整，可能导致上述工作高压规定值发生偏动。因此，维修调整完毕，务请重新对其高压值进行确认检查。
3. 更换显象管时，不得使用非经认可的、不同厂家、不同型号的显象管，以免产生超过规定标准的X射线辐射的危险。

维修后归还之前

在把维修后的电视机归还给用户之前，务请进行下列的安全检查。

1. 检查电视机中的所有导线的绝缘包皮有无扭折破损之处，于机芯底板和其它金属部件之间有无他物夹杂。
2. 检查电视机中的所有非金属质的控制旋钮、绝缘鱼鳞纸，机壳后盖、调节器和仪器隔室盖罩或屏蔽，电阻—电容隔离网以及机械部件隔离器等保护绝缘装置、器材。

ADJUSTMENT PRECAUTIONS

This model's settings are adjusted in two different ways: through the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

1) Calling the service mode by the microprocessor

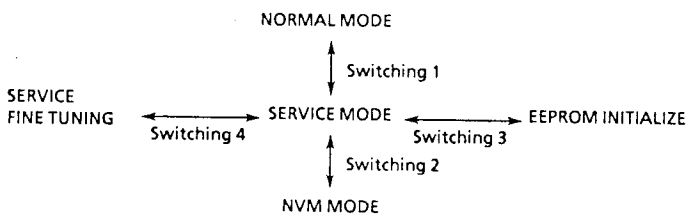
① Set the switch S1008 to the service mode position, and the microprocessor is put in the service mode (adjustment through the I²C bus control).
② Press the VOL-UP key on the remote controller to get ready to select the modes one by one.
③ Press the VOL-DOWN key on the remote controller to get ready to select the modes in the order opposite to the above step (2). (See SERVICE MODE)
④ Using the Λ and V keys on the remote controller, the data can be modified.
⑤ Set the switch S1008 to the normal mode (OFF) position, and the microprocessor is out of the service mode.

2) Factory presettings (EEPROM)

① Make a connection between TP1001 (pin (15) of IC1001) and GND. Now the initial preset data are written into the EEPROM.
② Once the chassis has been put together, be sure to make the connection (see 2-① above) first and then turn on the main power switch. Turning on the power without initializing the EEPROM may cause the unit to malfunction.

SERVICE MODE

(1) Mode switching



Switching 1 : NORMAL mode ⇔ SERVICE mode ; "H" ⇔ "L" (at pin (37))
Switching 2 : SERVICE mode ⇔ NVM mode ; "H" ⇔ "L" (at pin (11))
Switching 3 : EEPROM initialize ; "H" ⇔ "L" (at pin (15))
* The initialization is made just once when the signal at pin (15) drops from "H" to "L".
* The initialization is possible only once when the main power is turned on. To initialize again, turn the main power off and then on again.
Switching 4: SERVICE mode ⇔ SERVICE FINE-TUNING mode
The PRESET key on the unit is used for this switching.

调整时注意事项

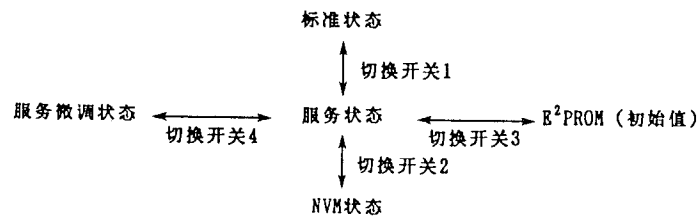
本型号电视机由I²C总线控制与一般的模拟调节综合进行。I²C总线控制包括初始设定（预设）以及下述的变量数据项目的调整设定。

1)微处理机的服务状态的设定
①变S1008开关于服务状态位置，微处理机即处于服务状态(I²C总线控制调整状态)。
②触按遥控器上的音量增大键以顺序选择各种调整状态。
③触按遥控器上的音量减小键，可按与步骤②相反顺序选择各种调整状态（见服务状态之项）
④触按遥控器上的Λ・V键，可变换调整数据。
⑤取消服务状态时，变S1008开关（关闭侧）于正常状态位置即可。

2)初始值（预设值）的设定(E²PROM)
①接TP1001(IC1001的销(5)）于接地端，初始值设定数据便存储于E²PROM记忆装置之中。
②组装机芯底盘后，必须先确认上记(2-①之项）处理是否为完全正确，然后再打开主电源开关。
对E²PROM未处理初始值的设定之状态下打开主电源开关时，可能会导致不正常的工作状态，故请加以注意。

服务状态

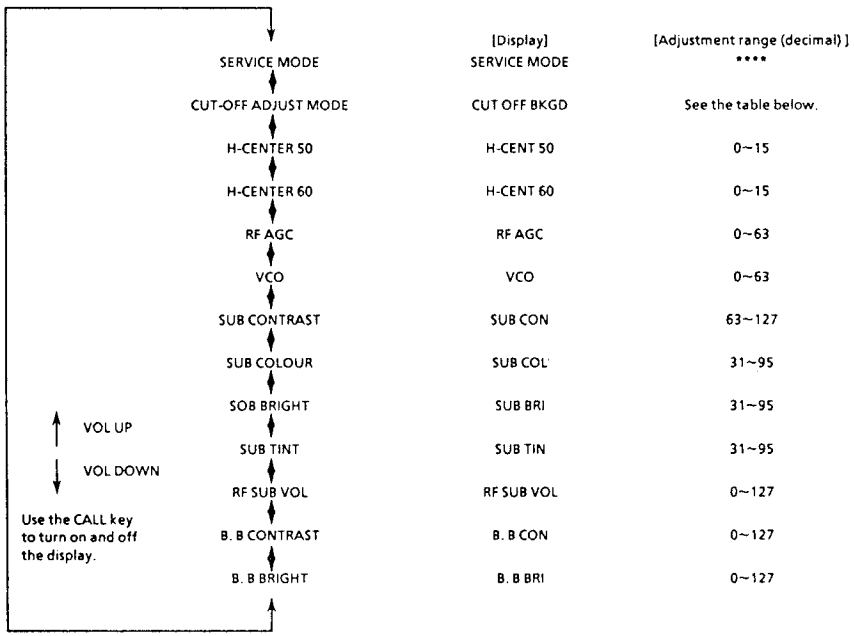
(1)设定状态的切换



切换开关1：标准状态 ⇔ 服务状态… "H（高）" ⇔ "L（低）" （销(37))
切换开关2：服务状态 ⇔ NVM状态… "H（高）" ⇔ "L（低）" （销(11))
切换开关3：E²PROM(初始值)… "H（高）" ⇔ "L（低）" （销(15))
＊只在销(15)前沿处作一次。
＊每次打开主电源开关时，只可作一次。再作一次时，先关断主电源开关，然后再打开主电源开关而进行。
切换开关4：服务状态 ⇔ 服务微调状态
触按电视机上的PRESET键进行切换。

(2) SERVICE mode

a) In the SERVICE mode, the VOL-UP and VOL-DOWN keys are used to select the following adjustment items.



b) CUT-OFF ADJUST mode

Adjustment item	Data up	Data down	Adjustment range
R-CUT OFF	Key 1	Key 4	0~255
G-CUT OFF	Key 2	Key 5	0~255
B-CUT OFF	Key 3	Key 6	0~255
R-DRIVE	Key 7	Key F/B	0~63
B-DRIVE	Key 8	Key 0	0~63
HORIZONTAL CENTERING	Key 9		—

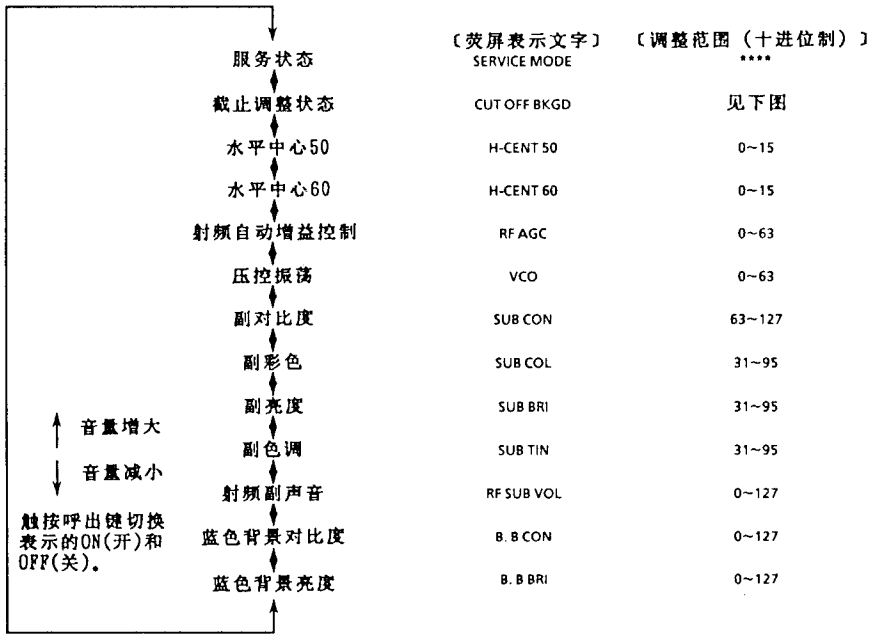
In the CUT-OFF ADJUST mode (for all the adjustments other than the horizontal centering), the contrast and brightness are adjusted as follows.

Key	CONTRAST	BRIGHT
10 +	1/64 level	32/64 level
20 +	64/64 level	32/64 level
30 +	64/64 level	64/64 level

c) Other adjustment modes
The data settings can be turned up and down using the [∧] / [∨] (DAC UP/DOWN) keys.

(2)服务状态的动作

a)设定服务状态后，触按音量增大键或音量减小键切换如下：



b)截止调整状态

调整项目	数据上移	数据下移	调整范围
红色截止	1键	4键	0~255
绿色截止	2键	5键	0~255
蓝色截止	3键	6键	0~255
红色激励	7键	F/B键	0~63
蓝色激励	8键	0键	0~63
水平中心状态	9键		—

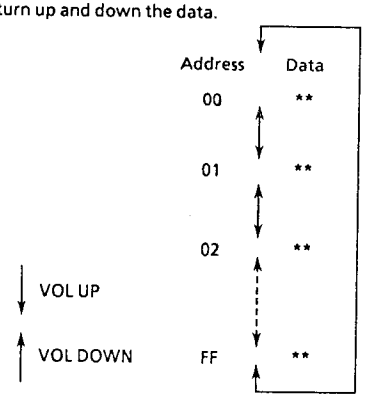
在非水平中心的截止调整状态时，必须设对比度和亮度控制于下表所示的规定位置。

键钮	对比度	亮度
10 +	1/64级	32/64级
20 +	64/64级	32/64级
30 +	64/64级	64/64级

C)除此以外的调整状态
触按 [∧] / [∨] (DAC上移/下移)键进行数据的上移和下移。

(3) NVM mode

a) The NVM mode is introduced at switching 2.
b) Using the VOL-UP/DOWN keys, the addresses are searched as follows. At a desired address, use the [∧]/[∨] (DAC UP/DOWN) keys to turn up and down the data.



(4) EEPROM initialization

At switching 3, the following data are transmitted to the EEPROM.

- Factory preset data

Item	Setting
LAST CH	CH1
LAST POWER	ON
FLACH BACK	CH1
BLUE BACK	ON
VOLUME	1/64 level
CONTRAST	64/64 level
COLOUR	32/64 level
BRIGHT	32/64 level
TINT	32/64 level
SHRPNESS	17/33 level
AFT	ALL CH ON
SKIP	ALL CH OFF
COLOUR SYSTEM	ALL CH AUTO
SOUND SYSTEM	ALL CH AUTO
SERVICE MODE	INITIAL

- SERVICE MODE reference data

Item	Data (decimal)
R-CUT OFF	0
G-CUT OFF	0
B-CUT OFF	0
R-DRIVE	31
B-DRIVE	31
H-CENTER 50	6
H-CENTER 60	9
RF AGC	31
VCO	31
SUB CONT	85
SUB COLOUR	55
SUB BRIGHT	40
SUB TINT	58
RF SUB VOL	63
B. B CONT	41
B. B BRIGHT	40

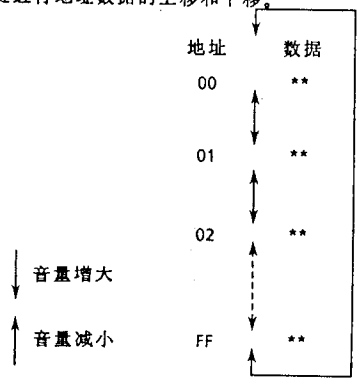
- DELAY TIME reference data

Item	Data (hexadecimal)
PAL DELAY TIME	25H
SECAM DELAY TINE	66H
NTSC DELAY TIME	55H
B/W DELAY TIME	71H

(3)NVM设定状态

a)通过切换开关2设定NVM状态。

b)触按音量增大键或音量减小键，地址代码即发生如下变动：设定所需地址代码后，触按[∧]/[∨] (DAC上移/下移)键进行地址数据的上移和下移。



(4) E^2PROM初始值的设定

用切换开关3输入下记数据于E^2PROM装置之中。

●出厂前的初始设定数据

项目	设定值
最后设定频道	频道1
最后设定电源	设定(ON)
反闪	频道1
蓝色背景	设定(ON)
音量	1/64级
对比度	64/64级
彩色	32/64级
亮度	32/64级
色调	32/64级
鲜明度	17/33级
自动微调	全频道设定(ON)
频道跳跃	全频道关闭(OFF)
彩色制式	全频道自动
声音制式	全频道自动
服务状态	开头

●服务状态的标准数据

项目	数据（十进制）
红色截止	0
绿色截止	0
蓝色截止	0
红色激励	31
蓝色激励	31
水平中心 50	6
水平中心 60	9
射频自动增益控制	31
压控振荡	31
副对比度	85
副彩色	55
副亮度	40
副色调	58
射频副音量	63
蓝色背景对比度	41
蓝色背景亮度	40

●延迟时间的标准数据

项目	数据(十六进制)
PAL制式延迟时间	25H
SECAM制式延迟时间	66H
NTSC制式延迟时间	55H
B/W制式延迟时间	71H

(5) SERVICE FINE-TUNING mode

a) This mode is introduced at switching 4.
b) This mode does not work in the AV mode.
c) During this mode, the AFT system stays off [AFT DEF bit (BAH 04H D6) is set at "1".
d) The data is turned up and down once when the UP/DOWN keys on the set are first pressed. For a period of about 270 msec that follows, this up/down action is not made whether the keys are held down. After that, the up/down action is performed every 135 msec or so.
e) When the keys are released, the tuning, band, AFT-on and skip-off data are written into the EEPROM.
f) The following are effective during this mode.
- POWER key input
- Switching 1
- Switching 4

(5)服务微调方式

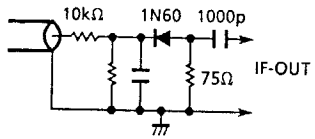
a)通过切换开关4可设定该方式。
b)在声象(AV)状态下不能使用该方式。
c)在设定该方式之中，AFT OFF(自动微调关闭) 〔AFT DEF位数 (BAH 04H D6)应选定"1"。
d)首先触按电视机上的上移/下移键进行数据的上移或下移工作一次。此后，即使在约270米/秒之间内持续触按上移/下移键也无法进行数据的上移或下移工作。由此以后，每经过135米/秒可进行数据的上移和下移工作。
e)解除键钮的设定时，就存储调谐、频带、自动微调设定以及频道跳跃关闭等的数据于E^2PROM记忆装置之中。
f)如下所示的状态中均有效。
●电源键钮输入
●切换开关1
●切换开关4

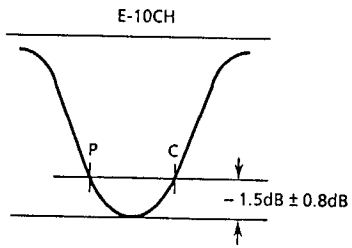
SERVICE ADJUSTMENT

■ PIF/AFT/AGC ADJUSTMENT

1. TUNER IFT (Preset)

1. Get the tuner ready to receive the E-10CH signal, but with no signal input. Adjust the Vt and band data.
2. Connect the sweep generator's output cable to the tuner antenna.
3. Adjust the sweep generator's output level to 80 dBμV.
4. Connect the response lead (use a low-impedance probe with wave detector) to the tuner's IF output terminal. (This terminal must have the probe alone connected.)
5. Set the RF AGC voltage to 0—6 V with no contact with the waveform.
6. Adjust the tuner's IF coil to obtain the waveform as shown in right.



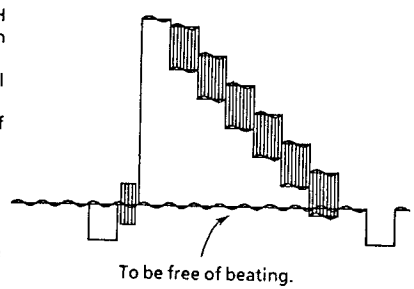


Note:
Be sure to keep the tuner cover in position during this adjustment.

2. COIL ADJUSTMENT: T202 (VCO)

1. Receive the E-12CH (PAL COLOUR BAR) signal. If this signal is not available, receive an E-5CH or higher-channel signal.
   - Field strength: 60—80 dBμV
2. Connect the oscilloscope to pin (36) of IC801.
   - Range: 0.5 V/div.
   - Sweep time: 20 μsec/div
   - Sync: Horizontal sync
3. Connect the standard signal generator's output cable to the tuner's IF output terminal with a 1-pF capacitor in between.
   - Frequency: 38.9 MHz (CW) ± 5 kHz
   - Level: About 90 dBμV
4. Using the Preset switch, bring about the VHF-H Tuning mode. Adjust the Fine Tuning Up/Down keys so that the waveform be free of beating.
5. Using the Preset switch, bring about the Normal mode.
6. Adjust T202 so that the waveform be free of beating.

- Adjustment error: 38.900 MHz ± 25 kHz



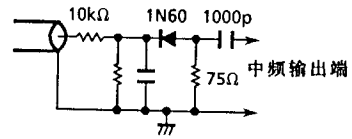
Note 1:
Make this adjustment with the VCO data in the service mode at 31/63.

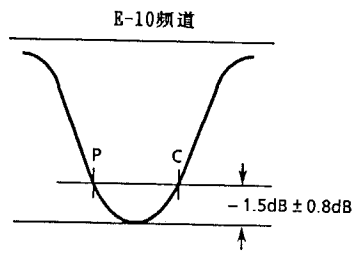
Note 2:
Warm up the unit long enough before starting adjustment and checking.

■ PIF/AFT/AGC的调试

1 调谐器中频变压器线圈的调试（预设）

1. 在无信号接收状态下，接收E-10频道信号，调节Vt和频带数据。
2. 接扫频振荡器输出端于调谐器天线接线端。
3. 把扫频振荡器输出电平调至80dBμV。
4. 接响应引线（使用带有检波器的低阻抗探针）于调谐器中频输出端。（只接探针于调谐器中频输出端）。
5. 设射频自动增益控制RF AGC于0至6V，消去其波形表示。
6. 再将调谐器中频线圈所得波形调至下图所示的规定要求。





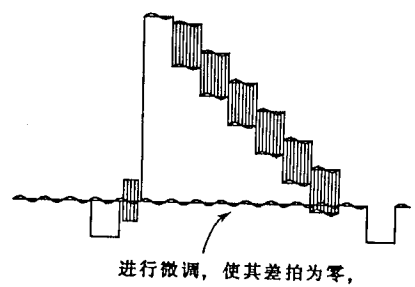
注意：
调整时，请确认调谐器盒盖的罩接。

2. 线圈的调试：T202（压控振荡器VCO）

1. 接收E-12频道(PAL制式彩条）信号。无E-12频道信号输入时，可用E-5频道以上的频道信号代替。
   - 场强度：60～80dBμV
2. 接示波器于IC801的销(36)。
   - 测示范围： 0.5V/段
   - 扫描时间： 20微秒/段
   - 同步动作： 水平同步
3. 通过串接一只1pF的电容器，接标准信号发生器的输出端于调谐器中频输出端。
   - 频率： ＊(CW) ± 5kHz
   - 电平： 约90dBμV
4. 触按预设键置电视机于高域甚高频状态。上下调节调谐器的微调控制键，使其输出波形呈现零拍。
5. 再触按预设键处电视机于标准状态。
6. 调节T202，使其输出波形的差拍消失为零。
   - 调整误差： 38.900MHz ± 25kHz

注意：作此项调试之前，必须确认在服务状态下的“压控振荡器VCO”的总线控制数据为31/63。

注意：
作此项调试之前，应先充分预热之。



■ 115V LINE ADJUSTMENT

1. Before turning on the power, set R711 to the 5/10 position.
2. Receive the E-5CH (monoscope pattern) signal.
3. Set the contrast and brightness controls to the MAX position.
4. Connect the beam current meter to TP602 (–) and TP603 (+).
5. Take the beam current meter reading to see if the beam current is as specified below (*1).
   If the beam current is not as specified, adjust the sub-contrast control (R420) to get the beam current in this range.
6. Connect the digital voltmeter to TP701.
   ● Adjust R711 to obtain 115 ± 0.5 V.

(*1)

14D-CMⒶ	600—800 μA
21D-CK1Ⓐ, CV-2132CK1Ⓐ	900—1100 μA

■ 115V线路的调试

1. 打开电源开关之前，必须设R711于5/10位置。
2. 接收E-5频道(单象管图案)信号。
3. 设对比度控制和亮度控制于MAX(最大)位置。
4. 接电子束电流计于TP601(—)和TP602(+)。
5. 用电子束电流计检查电子束电流是否于(*1)所示的规定范围之间。上述之外之场合，必须调节副对比度控制(R420)，使电子束电流计所测的读数达至(*1)所示的规定范围。
6. 接数字式电压计于TP701。
   ● 调节R711，使数字式电压计所测的读数达至115 ± 0.5V的规定要求。

(*1)

型号14D-CMⒶ ..... 600～800μA
型号21D-CK1Ⓐ、CV-2132CK1Ⓐ ..... 900～1100μA

■ PURITY ADJUSTMENT

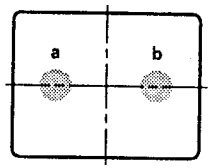


Fig. A

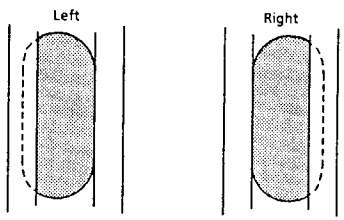


Fig. B

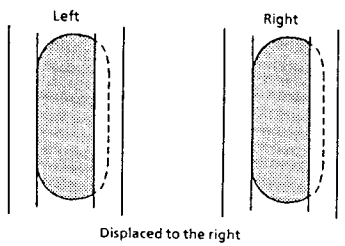


Fig. C

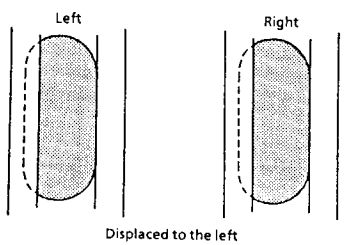


Fig. D

Note 1: Keep the static convergence roughly adjusted.

Note 2: Maintain the purity magnet at the zero magnetic field.

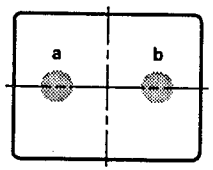
1. 14D-CM Ⓐ:
   Warm up the unit for 30 minutes or longer with a beam current of over 500 μA.
   21D-CK1Ⓐ, CV-2132CK1Ⓐ:
   Warm up the unit for 30 minutes or longer with a beam current of over 700 μA.
2. 14D-CMⒶ:
   Receive the green-only signal. Adjust the beam current to 500 μA or so.
   21D-CK1Ⓐ, CV-2132CK1Ⓐ:
   Receive the green-only signal. Adjust the beam current to 700 μA.
3. Degauss the CRT enough with the degaussing coil.

PREPARATIONS

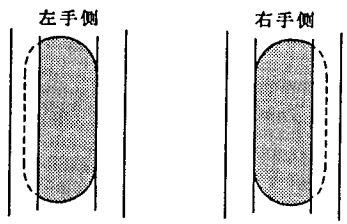
- Orientation: Eastward
  Adjustment field (depending on destinations)
  Vertical (Bv): +30,000 nT (+0.30 gauss)
  Horizontal (Bh): 20,000 nT (0.20 gauss)

1. Observe the points "a" and "b", as shown in Fig. A, through a microscope. Adjust the landings to the specified requirements.
2. Move the deflection yokes forward so that the left and right landings be equally placed outward. See Fig. B.
3. If the landings are placed to the left or right, as shown in Figs. C and D, readjust the open angle of the purity magnet.
4. Make sure the left and right beam landings are as specified. Now check the CRT corners to see if they all meet the rank "B" requirements.
5. If any other colour appears on the screen, move the deflection coil backward.
   - Landings outward: Deflection yokes forward
   - Landings inward: Deflection yokes backward
6. Orient the raster rotation to 0 eastward.
7. Tighten up the deflection coil screws.
   - Tightening torque: 11 ±2 kg-cm

■ 色彩纯度的调试

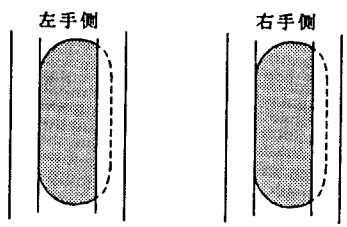


图A



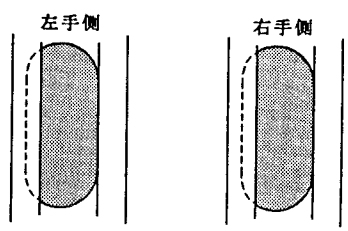
电子束射击点位置向外偏移

图B



电子束射击点位置向右偏移

图C



电子束射击点位置向左偏移

图D

注意：必须先对静聚焦度进行粗调。

注意：调节色彩纯度磁铁，使其磁场磁势为0。

1. 型号14D-CMⒶ：
   作此项调试之前，先用大于500μA的电子束电流预热阴极显象管CRT30分钟以上。
   型号21D-CK1Ⓐ、CV-2132CK1Ⓐ：
   作此项调试之前，先用大于700μA的电子束电流预热阴极显象管CRT30分钟以上。
2. 型号14D-CMⒶ：
   接收绿色单色信号，并调节其电子束电流于500μA左右。
   型号21D-CK1Ⓐ、CV-2132CK1Ⓐ：
   接收绿色单色信号，并调节其电子束电流于700μA左右。
3. 通过消磁线圈对阴极显象管CRT作完全消磁处理。

调试

- 调试中，必须保持CRT面朝东方。
  调整磁场磁势（磁场磁势由发往地之别而有差异）
  垂直(Bv)：+30,000nT(+0.30高斯)
  水平(Bh)：20,000nT(0.20高斯)

1. 用放大显示镜观察图A所示两色点(a点和b点)，调节色彩纯度磁铁，使两色点位置符合规定要求。
2. 如果两色点位置如图B所示各自发生左右偏移，可向前按压偏转线圈将其调整。
3. 如果两色点位置如图C或图D所示均发生向右或向左偏移，可通过调节色彩纯度磁铁的开启程度，调整电子束射击点位置。
4. 设定荧屏中心部位左右两边的电子束射击点位置于正确的射击点位置。然后，检查荧屏四角的射击点位置正确与否。最后，按规范B级要求检查荧屏上任意点的着色位置是否满足规定要求。
5. 如果着色点掺杂有其它色彩，可向后拉偏转线圈消除其它杂色。
   - 着色点位置向外偏移：前推偏转线圈加以调节。
   - 着色点位置向内偏移：后拉偏转线圈加以调节。
6. 将光栅偏转角调节至0，并保持阴极显象管CRT面朝东方。
7. 紧固偏转线圈的螺丝。
   - 紧固扭矩：11kg ± 2kg-cm

■ CONVERGENCE ADJUSTMENT

CONVERGENCE ADJUSTMENT (To be done after the purity adjustment)

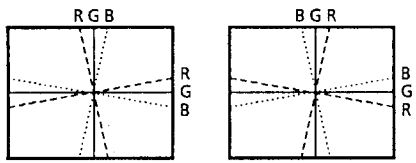


Fig. a *Fig. b*

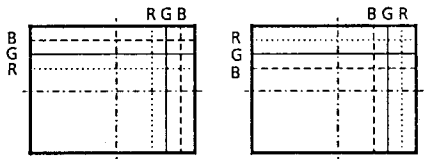
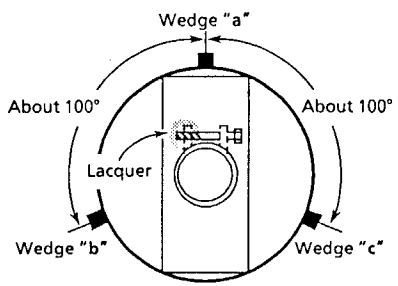
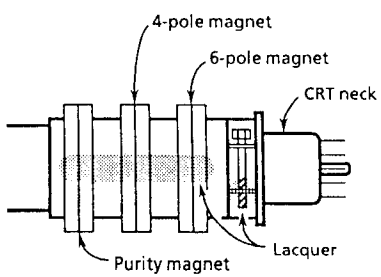


Fig. c *Fig. d*





1. Receive the "CROSSHATCH PATTERN" signal.
2. Make the brightness and contrast settings at 5/10 (Normal) and 10/10 (Maximum), respectively. (Use the remote controller.)

STATIC CONVERGENCE

1. Turn the 4-pole magnet to a proper open angle in order to superpose the blue and red colours.
2. Turn the 6-pole magnet to a proper open angle in order to superpose the green over the blue and red colours.

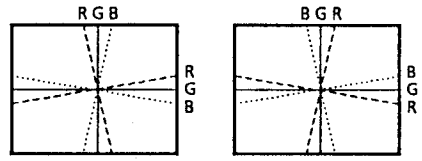
DYNAMIC CONVERGENCE

1. Adjust the convergence on the fringes of the screen in the following steps.
   - Fig. a: Drive the wedge at point "a" and swing the deflection coil upward.
   - Fig. b: Drive the wedges at points "b" and "c" and swing the deflection coil downward.
   - Fig. c: Drive the "c" wedge deeper and swing the deflection coil rightward.
   - Fig. d: Drive the "b" wedge deeper and swing the deflection coil leftward.
2. Fix all the wedges on the CRT and apply glass tape over them.
3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole and 6-pole magnets) and magnet unit lock screw.

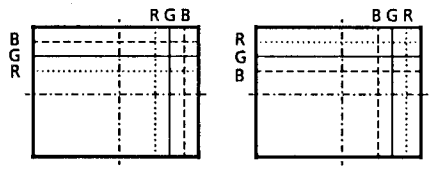
Finally receive the red-only and blue-only signals to make sure there is no other colours on the screen.

■ 画面聚焦度的调试

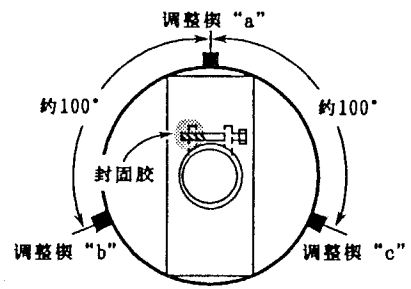
画面聚焦度的调试（此项调试必须于色彩纯度磁铁调试完毕后进行）。

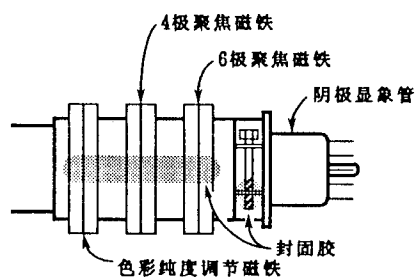


图a 图b



图c 图d





1. 接收棋盘格测试图案信号。
2. 设亮度控制于标准位置(5/10)。
   设对比度控制于最大位置(10/10)。
   （使用遥控器）

静聚焦度的调试

1. 调节4极聚焦磁铁的开角与转角，使蓝色线条与红色线条重叠。
2. 调节6极聚焦磁铁的开角与转角，使绿色线条再与蓝、红色重叠线条重叠。
   （使用遥控器）。

动聚焦度的调试

1. 按下述要求调节荧屏周边的聚焦度。
   a) 图a：插调整楔于 "a"，向上摆动偏转线圈进行调节。
   b) 图b：插调整楔于 "b" 和 "c"，向下摆动偏转线圈进行调节。
   c) 图c：深插调整楔 "c"，向右摆动偏转线圈加以调节。
   d) 图d：深插调整楔 "d"，向左摆动偏转线圈加以调节。
2. 贴三支调整楔于阴极显象管CRT上，用玻璃胶带固定之。
3. 加封固胶于偏转线圈的固定螺丝、磁铁装置（色彩纯度调节磁铁、4极与6极聚焦磁铁）以及磁铁装置的固定螺丝，封固之。

该项调试完毕后，再让电视机接收红色信号或蓝色信号，然后，检查接收的单色信号是否掺杂有其它色彩信号。

■ Cut-Off, Background and Sub-Contrast Adjustments

1. CRT CUT-OFF ADJUSTMENT

Adjusting point
☐ Service mode: I²C bus adjustment
(R-CUT OFF, G-CUT OFF, B-CUT OFF, SUB BRIGHT)
☐ Screen control (a part of T601)

1. Receive the MONOSCOPE PATTERN signal.
2. Adjust the SUB BRIGHT data to 40/127.
3. Turn on the S1008 switch to select the CUT OFF BKGD mode.
4. Make the following settings.
   • R-CUT OFF: 0/255 • G-CUT OFF: 0/255 • B-CUT OFF: 0/255
   • Screen control: 0/10
5. Press the "9" key on the remote controller to reach the horizontal centering mode.
6. Turn the screen control clockwise until the horizontal raster of the first glimmering colour becomes slightly visible.
7. Adjust the cut-off data of the other two colours until the horizontal raster becomes whitish. (Table 1)
8. Turn the screen control counterclockwise until the horizontal raster disappears.
9. Press the "9" key on the remote controller to call the Normal mode.

Note: Before starting this adjustment, warm up the unit for 30 minutes or longer at a beam current of over 500 μA (14D-CM Ⓐ), 700 μA (21D-CK1Ⓐ, CV-2132CK1Ⓐ).

Table 1.
The data can be turned up and down with the keys.

	KEY No.	
	UP	DOWN
R-CUT OFF	1	4
G-CUT OFF	2	5
B-CUT OFF	3	6

2. WHITE BALANCE ADJUSTMENTS

Adjusting point
☐ Service mode: I²C bus adjustment
(R-DRIVE, B-DRIVE)

1. Receive the MONOSCOPE PATTERN signal.
2. Make this adjustment just after the CRT cut-off adjustment.
3. Connect the beam current meter between TP601 (–) and TP602 (+). (Full scale: 3 mA range)
4. Press the "30 + " key on the remote controller to call the PIC3 mode. Roughly adjust the SUB CONT data to have a beam current of 1100 μA.
5. Adjust the R-DRIVE and B-DRIVE data to have a colour temperature of 10900°K (white). (Table 2)
6. Press the "10 + " key on the remote controller to call the PIC1 mode. Now check the colour temperature. If the colour temperature is not 10900°K, go back to the above Item 1.
   • 10900°K x: 0.275, y: 0.287
   (with a Minolta colour temperature meter)

KEY	MODE	SETTING POSITION	
		CONTRAST	BRIGHT.
10 +	PIC1	1/64	32/64
20 +	PIC2	64/64	32/64
30 +	PIC3	64/64	64/64

Table 2.

	KEY No.	
	UP	DOWN
R-DRIVE	7	FB
B-DRIVE	8	0

3. SUB-CONTRAST ADJUSTMENTS (I²C bus adjustment)

1. Make this adjustment just after the white balance adjustment.
2. Receive the MONOSCOPE PATTERN signal.
3. Connect the DC milliammeter between TP601 (–) and TP602 (+).
   • Meter's full-scale: 3 mA range
4. Adjust the SUB-CONT bus data so that the beam current be 800 μA (14D-CM Ⓐ,), 1100 μA (21D-CK1Ⓐ, CV-2132CK1Ⓐ).
   (at Contrast/Brightness MAX condition)

Note:
Before starting this adjustment, warm up the unit for 30 minutes or longer at a beam current of over 500 μA (14D-CM Ⓐ), 700 μA (21D-CK1Ⓐ, CV-2132CK1Ⓐ).

■ 阴极显象管CRT截止、蓝色背景以及副对比度的调试

1. 阴极显象管CRT截止的调试

调试点
☐ 在服务状态下进行I²C总线的调试。
（红色截止、绿色截止、蓝色截止及副亮度控制）
☐ 荧屏控制旋钮（T601的一部分）

1. 接收单象管图案信号。
2. 设副亮度控制于40/127位置。
3. 打开S1008开关以选择截止蓝色背景状态。
4. 设定内容如下：
   红色截止：0/255 绿色截止：0/255 蓝色截止：0/255
   荧屏控制：0/10。
5. 触按遥控器上的"9"键钮以选择水平中心状态。
6. 顺时针方向旋转荧屏控制旋钮，直至荧屏上微弱地出现水平光栅为止。
7. 调节其它两色的截止数据，使荧屏上的水平光栅变为白色。（见注意1）
8. 逆时针方向旋转荧屏控制旋钮，直至荧屏上的水平光栅完全消失为止。
9. 触按遥控器上的"9"键钮以选择NORMAL(标准）状态。

注意：作此项调试之前，先用大于500μA(14D-CMⒶ)/700μA(21D-CK1Ⓐ 与CV-2132CK1Ⓐ)的电子束电流预热阴极显象管CRT30分钟以上。

注意1
用下记数字键钮可进行数据的上移或下移工作。

	键钮	
	上移	下移
红色截止	1	4
绿色截止	2	5
蓝色截止	3	6

2. 白色平衡的调试

调试点
☐ 在服务状态下进行I²C总线的调试
（红色激励、蓝色激励）

1. 接收单象管图案信号。
2. 该项调试应在阴极显象管CRT截止的调试完毕后进行。
3. 接电子束安培计于TP601(—)与TP602(+)之间。
（安培计测示范围：3mA）
4. 触按遥控器上的"30+"键钮以选择PIC3。
粗调副对比度控制数据，使电子束电流达至1100μA左右。
5. 调节绿、蓝两色激励数据，以获得色温为10900° K的白色。
（见注意2）
6. 触按遥控器上的"10+"键钮以选择PIC1，然后，检查色温是否为规定范围内。此时，如果色温并非为10900° K，则必须返回至前项的第1项重新进行调整。
10900° K X:0.275 Y:0.287
（美能达色温计所测）

键钮	状态	设定位置	
		对比度	亮度
10 +	PIC1	1/64	32/64
20 +	PIC2	64/64	32/64
30 +	PIC3	64/64	64/64

注意2

	键钮	
	上移	下移
红色激励	7	FB
蓝色激励	8	0

3. 副对比度控制的调试(I²C总线的调试)

1. 该项调试应在白色平衡的调试完毕后进行。
2. 接收单象管图案信号。
3. 接电子束安培计于TP601(-)与TP602(+)之间。
   ●安培计测示范围：3mA
4. 调节副对比度总线控制数据，使电子束安培计所测的读数达至800μA(14D-CMⒶ)/1100μA(21D-CK1Ⓐ 与CV-2132CK1Ⓐ)的规定要求。
（对比度控制和亮度控制于其最大(MAX)位置之状态时。）

注意：作此项调试之前，必须用大于500μA(14D-CMⒶ)/700μA(21D-CK1Ⓐ 与CV-2132CK1Ⓐ)电子束电流预热阴极显象管CRT30分钟以上。

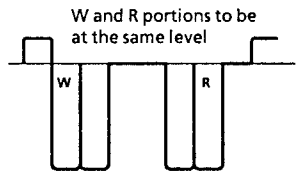
■ OSD ADJUSTMENT: T1001

1. Receive the CROSSHATCH PATTERN signal.
2. Press the CHANNEL CALL key.
3. Make sure the right-hand edge of the OSD character is aligned with the second line from right of the crosshatch pattern. Readjust T1001 if the alignment is beyond ± 1/2 line width.

■ PAL CHROMA ADJUSTMENTS

SUB-COLOUR (I^2C bus adjustment)

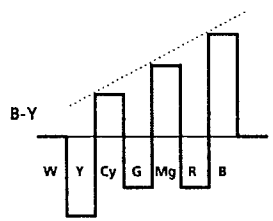
1. Receive the PAL COLOUR BAR signal.
2. Connect the oscilloscope to TP852 (RED cathode). (Use a 10:1 probe.)
   • Range: 2 V/div. • Sweep time: 20 μsec/div.
3. Using the remote controller, call the SUB COLOUR adjust mode. Adjust the SUB COLOUR data so that the white and red portions of the PAL colour bar be at the same level. See Figure.
4. Clear the adjustment mode.



■ NTSC CHROMA ADJUSTMENTS

SUB-TINT (I^2C bus adjustment)

1. Call the SUB TINT adjust mode. Receive the NTSC colour bar signal through the AV-IN terminal.
2. Connect the oscilloscope to TP853 (B-Y).
   • Range: 20 mV/div. (AC) • Sweep time: 20 μsec/div. (Use a 10:1 probe.)
3. Adjust the SUB-TINT data to obtain the waveform as shown in Figure.
4. Clear the adjustment mode.



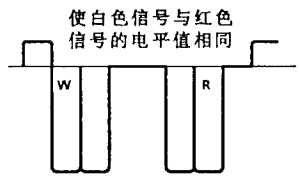
■ 在屏表示文字的调试：T1001

1. 接收棋盘格测试图案信号。
2. 触按频道呼出键。
3. 以棋盘格测试图案的右边第二条线与其表示文字右边相一致的位置为基准。如果其表示文字向左右方有1/2条线的偏移，便用T1001调节之。

■ PAL制式色度信号的调试

副彩色的调试（I^2C总线的调试）

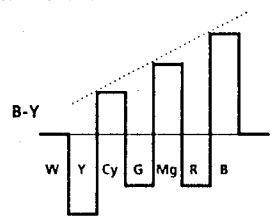
1. 接收PAL制式彩条信号。
2. 接示波器于TP852（红色阴极）。
   （使用10:1的探针为宜）
   ●测示范围：2V/段 ●扫频时间：20微秒/段
3. 用遥控器选择副彩色方式，然后，调节副彩色数据，使白色信号与红色信号达至右图所示的同样电平值。
4. 取消此项调整状态的设定。



■ NTSC制式色度信号的调试

副色调的调试（I^2C总线的调试）

1. 呼出副色调方式。通过声象输入端接收NTSC制式彩条信号。
2. 接示波器于TP853(B-Y)。
   ●测示范围：20mV/段（交流） ●扫频时间：20微秒/段
   （使用10:1的探针为宜）
3. 调节副色调数据，以获得右图所示的输出波形。
4. 取消此项调整状态的设定。



■ DEFLECTION ADJUSTMENT

1. HORIZONTAL SIZE: CN601

Note: Make this adjustment just after the purity and convergence adjustments.

1. Receive the "MONOSCOPE PATTERN" signal.
2. Insert P605 in CN601 to have the best horizontal size.
   - Over scan ..... 6% MIN, 8% TYP, 10% MAX

2. HORIZONTAL CENTER 50 (I^2C bus adjustment)

1. Receive the "MONOSCOPE PATTERN" signal.
2. Adjust the H-CENTER 50 data to align the pattern's center with the CRT's geometrical center.

3. HORIZONTAL CENTER 60 (I^2C bus adjustment)

1. Receive the AV-NTSC (monoscope pattern) signal.
2. Adjust the H-CENTER 60 data to align the pattern's center with the CRT's geometrical center.

4. VERTICAL LINEARITY: R523

1. Receive the "MONOSCOPE PATTERN" signal.
2. Adjust R527 to have the best vertical linearity.

5. VERTICAL CENTER: S501

1. Receive the "MONOSCOPE PATTERN" signal.
2. Adjust S501 to align the pattern's center with the CRT's geometrical center.

6. VERTICAL SIZE: R527

1. Receive the "MONOSCOPE PATTERN" signal.
2. Adjust R527 so that the vertical size be the same as the overscan of the horizontal size.

7. FOCUS: (a part of T601: Focus Control)

1. Receive the "MONOSCOPE PATTERN" signal.
2. Adjust the focus control to get the best focusing.

Note: Make this adjustment just after the sub-contrast adjustment.

■ A/V INPUT AND OUTPUT CHECK

1. AUDIO/VIDEO INPUT CHECK

1. Using the TV/AV key on the remote controller, make sure that the modes change in the order of TV, AV and TV again and that the video and audio outputs are according to the input and output terminals for each mode.

■ 偏转系统的调试

1. 水平尺寸：CN601

注意：此项调试应在色彩纯度的调试完毕后进行。

1. 接收单象管图案信号。
2. 插入P605于CN601，使水平尺寸达至最佳状态。
   过扫描 6%最小 8%TYP 10%最大

2. 水平中心50（I^2C总线的调试）

1. 接收单象管图案信号。
2. 调节“水平中心50”数据，使荧屏中心与阴极显象管的几何中心对齐。

3. 水平中心60（I^2C总线的调试）

1. 接收AV-NTSC制式（单象管图案）信号。
2. 调节“水平中心60”数据，使荧屏中心与阴极显象管的几何中心对齐。

4. 垂直线性度：R523

1. 接收单象管图案信号。
2. 调节R523，使垂直线性度达至最佳状态。

5. 垂直中心：S501

1. 接收单象管图案信号。
2. 调节S501，使荧屏中心与阴极显象管的几何中心对齐。

6. 垂直尺寸：R527

1. 接收单象管图案信号。
2. 调节R527，使垂直尺寸达至与水平尺寸的过扫描相同的尺寸。

7. 聚焦：(T601的一部分：聚焦控制)

1. 接收单象管图案信号。
2. 调节聚焦控制，以获得最佳聚焦效果。

注意：此项调试应在副对比度的调试完毕后进行。

■ 音频/视频输入、输出的检查

1. 音频/视频输入的检查

1. 相继触按遥控器上的电视与录象切换(TV/AV)键，检查电视机信号输入频道是否按电视频道(TV)，录象频道(AV)以及电视频道(TV)的顺序循环切换。并且，检查每一设定时的荧屏图象以及声音输出是否正常地与设定输入频道对应。

■ FUNCTION CHECK (PICTURE AND SOUND)

1. CONTRAST KEY

1. Receive the "MONOSCOPE PATTERN" signal.
2. Select the contrast in the picture mode.
3. Using the UP/DOWN key, make sure the contrast varies accordingly.

2. BRIGHTNESS KEY

1. Receive the "MONOSCOPE PATTERN" signal.
2. Select the brightness in the picture mode.
3. Using the UP/DOWN key, make sure the black level varies accordingly.

3. SHARPNESS KEY

1. Receive the "MONOSCOPE PATTERN" signal.
2. Select the sharpness in the picture mode.
3. Using the UP/DOWN keys, make sure the sharpness varies accordingly.

4. COLOUR KEY

1. Receive the "COLOUR BAR PATTERN" signal.
2. Select the colour in the picture mode.
3. Using the UP/DOWN keys, make sure the colour varies accordingly. (Set the key to minimum and be sure that no colour is left on the screen.)

5. TINT KEY

1. Receive the NTSC colour bar signal through the AV-IN terminal.
2. Select the tint in the picture mode.
3. Press the UP key to make sure the tint changes toward green, and the DOWN key toward red.

6. CHANNEL SIGN DISPLAY COLOUR

Make sure that all the channel signs (1-49) appear in green on the screen (with AFT on).

7. SOUND SYSTEM

1. Receive the 6.5 MHz-modulated, 400 Hz signal. Using the SOUND SYSTEM key, select D/K and make sure the sound is heard normally.
2. Receive the 6.0 MHz-modulated, TV broadcast signal. Using the SOUND SYSTEM key, select I and make sure the sound is heard normally.
3. Receive the 5.5 MHz-modulated, 400 Hz signal. Using the SOUND SYSTEM key, select B/G and make sure the sound is heard normally.

■ FACTORY PRESETTINGS

1. Main AC switch	OFF (Last POWER ON)
2. Last channel	1CH
3. System mode (all channels) (picture and sound)	AUTO
4. Blue back round	ON
5. Contrast	MAX
Colour	CENTER
Brightness	CENTER
Tint	CENTER
Sharpness	CENTER
6. Sound volume	MIN
7. AFT (all channels)	ON
8. Skip (all channels)	Released

■ 各控制功能的检查（图象及声音）

1. 对比度控制键

1. 接收单象管图案信号。
2. 于图象设定状态下，选择对比度设定。
3. 触按上移/下移键，检查对比度是否发生变化。

2. 亮度控制键

1. 接收单象管图案信号。
2. 于图象设定状态下，选择亮度设定。
3. 触按上移/下移键，检查黑色电平是否发生变化。

3. 鲜明度控制键

1. 接收单象管图案信号。
2. 于图象设定状态下，选择鲜明度设定。
3. 触按上移/下移键，检查鲜明度是否发生变化。

4. 彩色控制键

1. 接收彩条信号。
2. 于图象设定状态下，选择彩色设定。
3. 触按上移/下移键，检查彩色是否发生变化。
（设彩色控制于最小位置时，画面应完全变为黑色图象）。

5. 色调控制键

1. 通过声象输入端接收NTSC制式彩条信号。
2. 于图象设定状态下，选择色调设定。
3. 触按上移/下移键，检查色调是否变化如下：连续触按上移键，色调变绿；反之，其色调变红。

6. 频道代号表示色

所有频道(1～49)代号的表示色均为绿色(AFT ON之状态时)

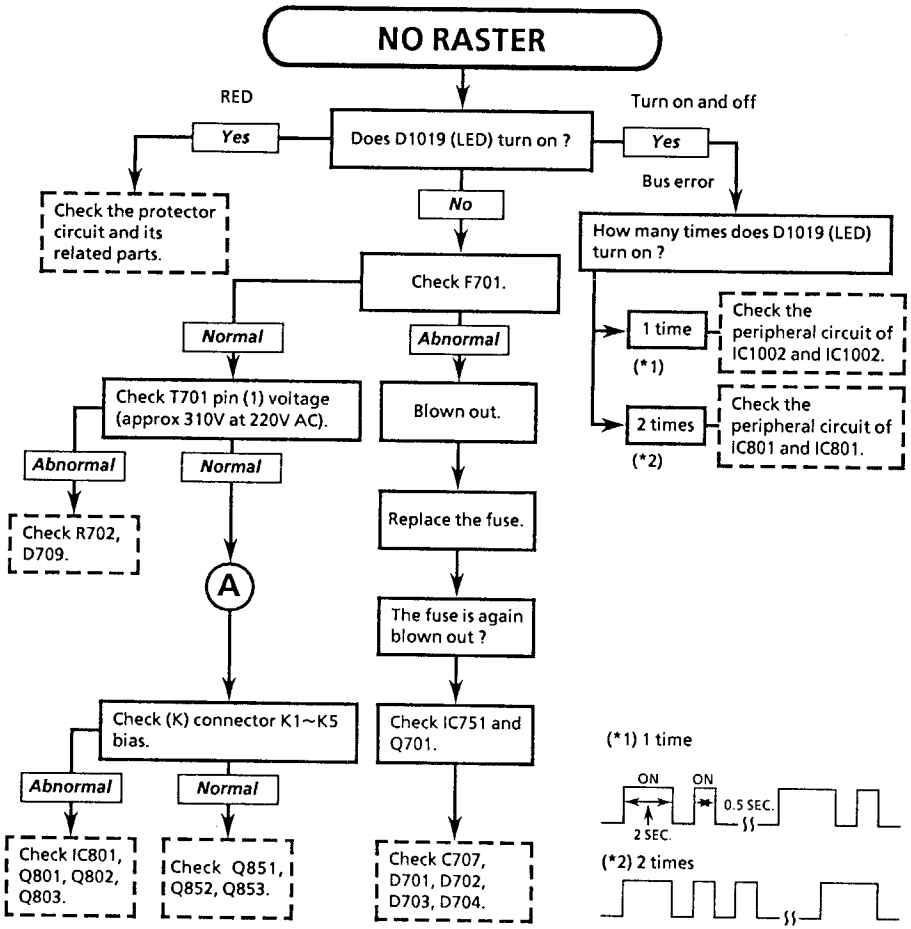
7. 声音制式

1. 接收6.5MHz调制的400Hz信号。触按声音制式选择键以选择D/K制式。检查声音输出是否为正常。
2. 接收6.0MHz调制的电视广播信号。触按声音制式选择键以选择I制式。检查声音输出是否为正常。
3. 接收5.5MHz调制的400Hz信号。触按声音制式选择键以选择B/G制式。检查声音输出是否为正常。

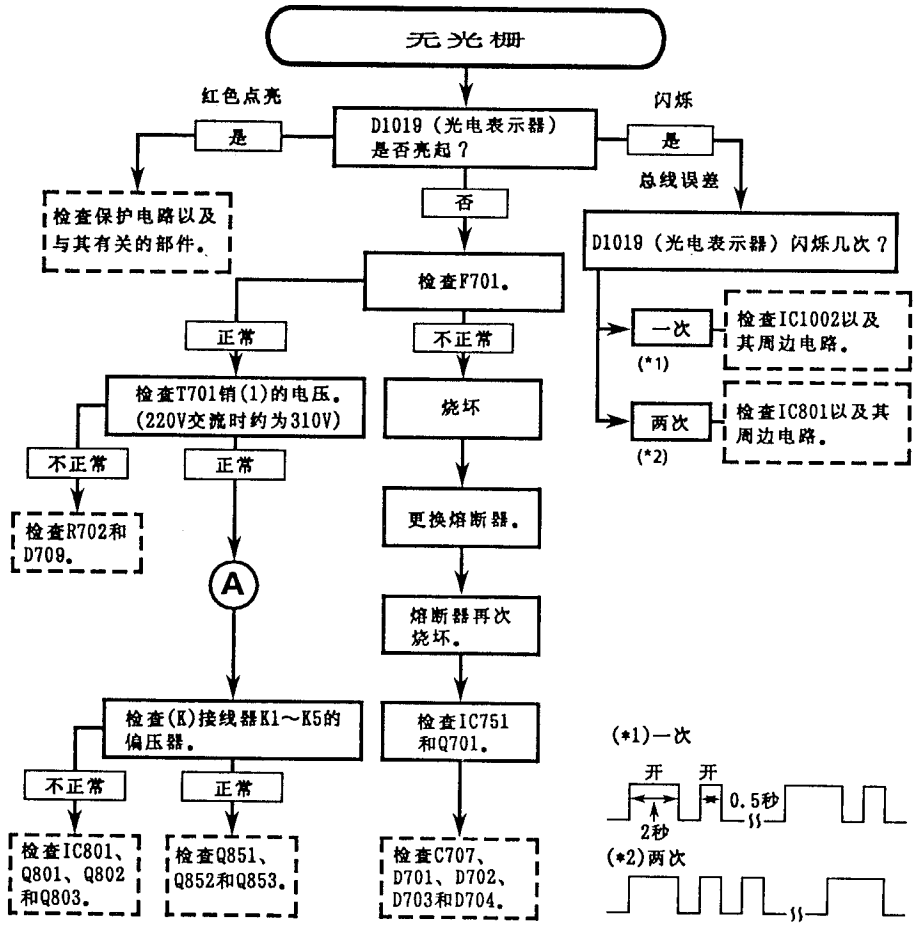
■ 出厂前的各项功能的设定

1. 主电源开关：	关闭(OFF)(最后电源ON)
2. 接收频道：	1频道(1CH)
3. 制式(全频道)：(彩色及声音)	自动(AUTO)
4. 蓝色背景：	设定(ON)
5. 对比度：	最大
色彩：	中央
亮度：	中央
色调：	中央
鲜明度：	中央
6. 音量：	最小
7. 自动微调(全频道)：	设定(ON)
8. 频道跳跃(全频道)：	解除

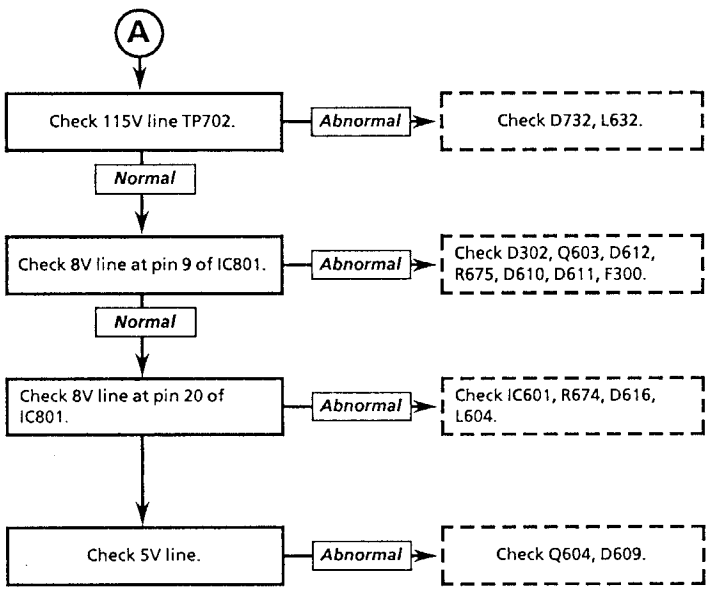
TROUBLE SHOOTING TABLE



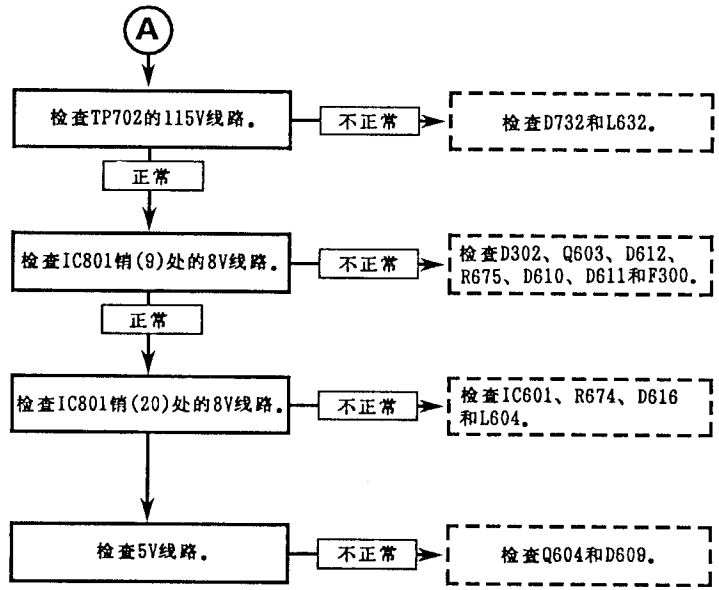
故障检修表



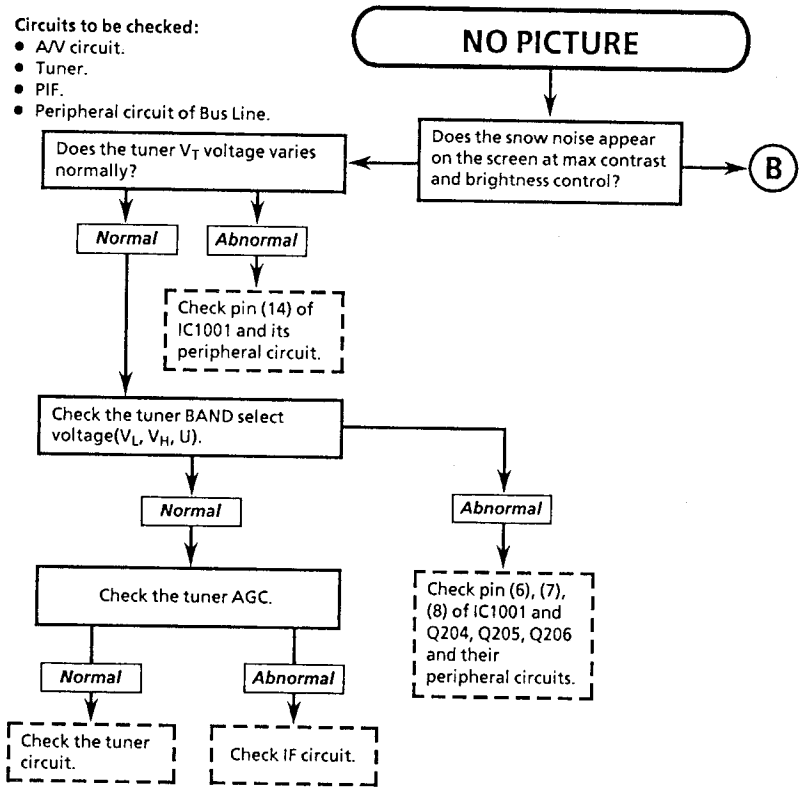
TROUBLE SHOOTING TABLE (Continued)



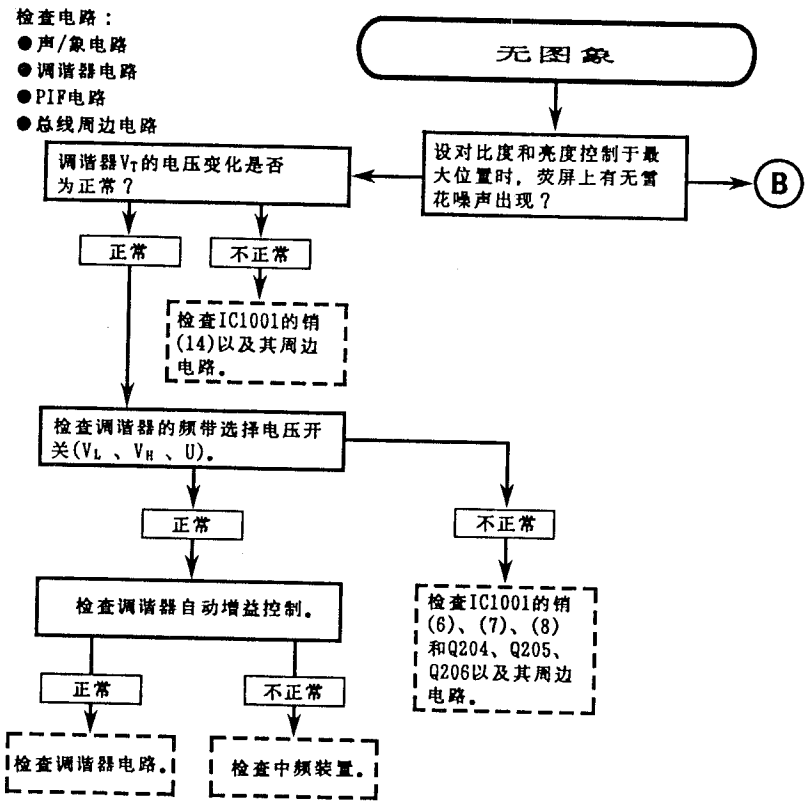
故障检修表(接上页)



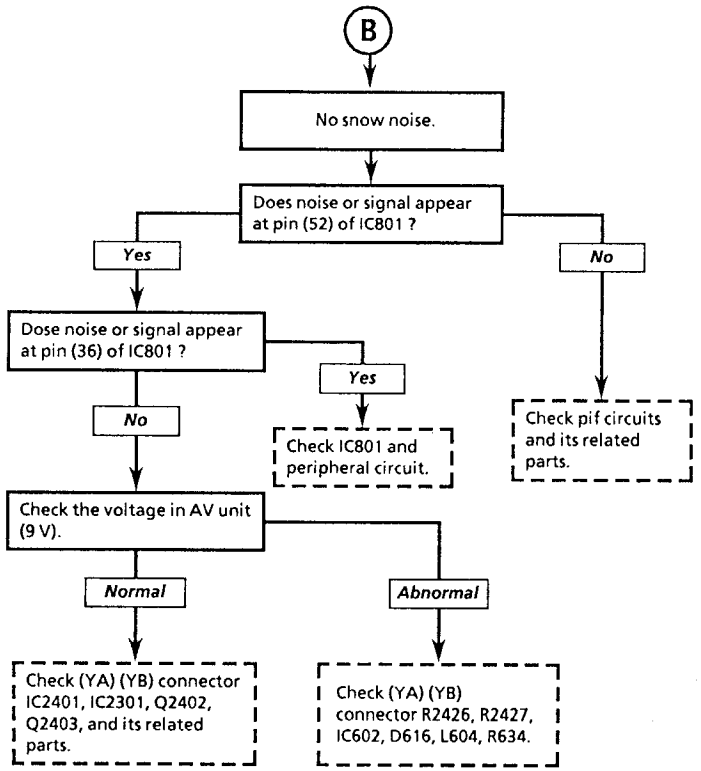
TROUBLE SHOOTING TABLE (Continued)


Circuits to be checked:
• A/V circuit.
• Tuner.
• PIF.
• Peripheral circuit of Bus Line.
NO PICTURE
Does the snow noise appear on the screen at max contrast and brightness control?
B
Does the tuner V_T voltage varies normally?
Normal
Abnormal
Check pin (14) of IC1001 and its peripheral circuit.
Check the tuner BAND select voltage(V_L, V_H, U).
Normal
Abnormal
Check pin (6), (7), (8) of IC1001 and Q204, Q205, Q206 and their peripheral circuits.
Check the tuner AGC.
Normal
Abnormal
Check the tuner circuit.
Check IF circuit.

故障检修表(接上页)

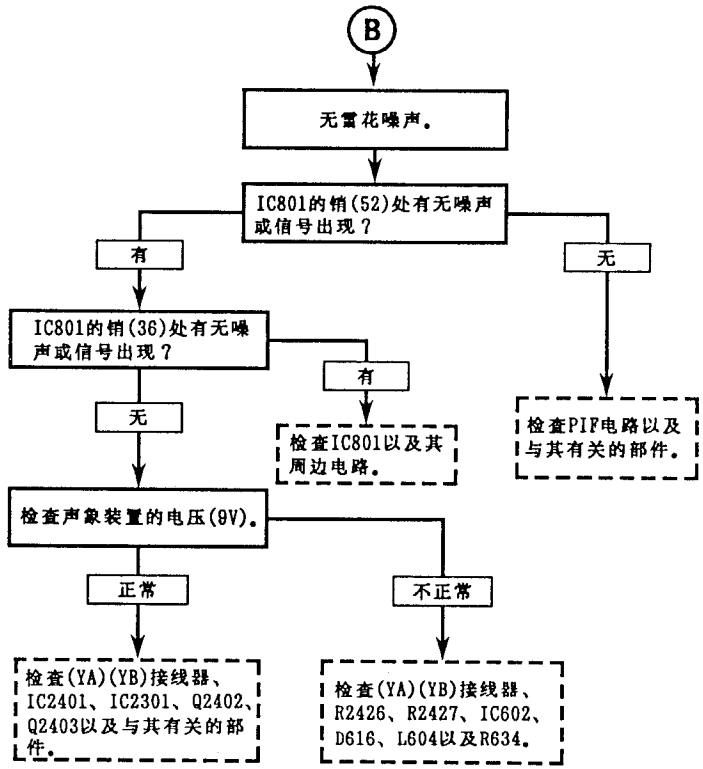


TROUBLE SHOOTING TABLE (Continued)


B
No snow noise.
Does noise or signal appear at pin (52) of IC801 ?
Yes
No
Dose noise or signal appear at pin (36) of IC801 ?
Yes
No
Check IC801 and peripheral circuit.
Check pif circuits and its related parts.
Check the voltage in AV unit (9 V).
Normal
Abnormal
Check (YA) (YB) connector IC2401, IC2301, Q2402, Q2403, and its related parts.
Check (YA) (YB) connector R2426, R2427, IC602, D616, L604, R634.

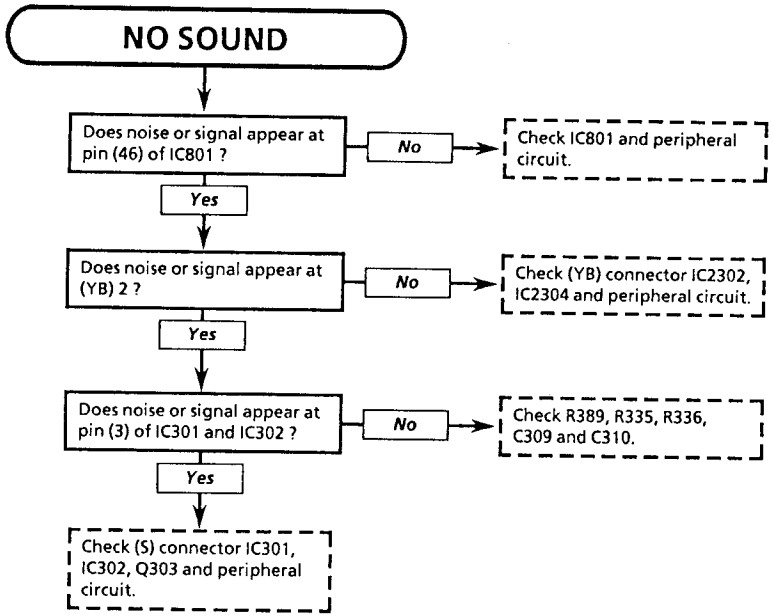
E20

故障检修表（接上页）



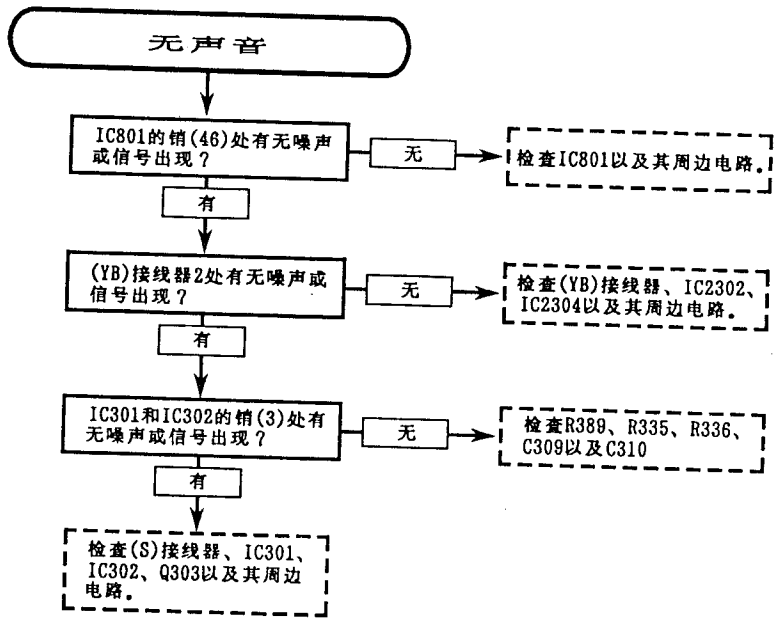
C20

TROUBLE SHOOTING TABLE (Continued)


NO SOUND
Does noise or signal appear at pin (46) of IC801 ?
No
Check IC801 and peripheral circuit.
Yes
Does noise or signal appear at (YB) 2 ?
No
Check (YB) connector IC2302, IC2304 and peripheral circuit.
Yes
Does noise or signal appear at pin (3) of IC301 and IC302 ?
No
Check R389, R335, R336, C309 and C310.
Yes
Check (S) connector IC301, IC302, Q303 and peripheral circuit.

E21

故障检修表（接上页）



C21

TROUBLE SHOOTING TABLE (Continued)

NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION

CIRCUIT TO BE CHECKED:
- Sync. Separator Circuit.

Check IC801.

DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY

Readjust vertical size.

- Vertical size is abnormal. → Check R528, R527, C511.
- Vertical linearity is abnormal. → Check C506, R521, R523 and R520.

NO VERTICAL SCAN

Check IC501 bias.

- *Normal* → Check C505.
- *Abnormal* → Check IC501.

E22

故障检修表（接上页）

无垂直同步信号和水平同步信号

检查电路：
- ●同步分离电路

检查IC801。

垂直放大及垂直线性度异常

重调垂直尺寸。

- 垂直尺寸不符规定要求。→ 检查R528、R527和C511。
- 垂直线性度不符规定要求。→ 检查C506、R521、R523和R520。

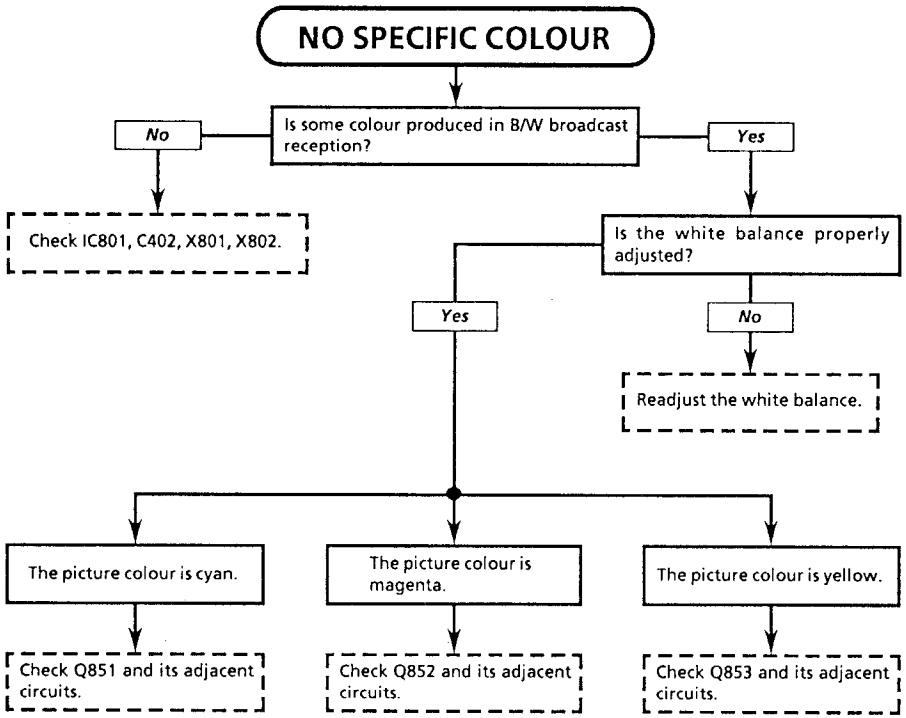
无垂直扫描

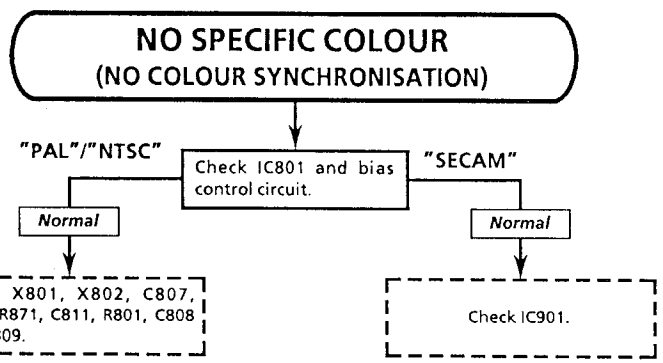
检查IC501偏压器。

- 正常 → 检查C505。
- 不正常 → 检查IC501。

C22

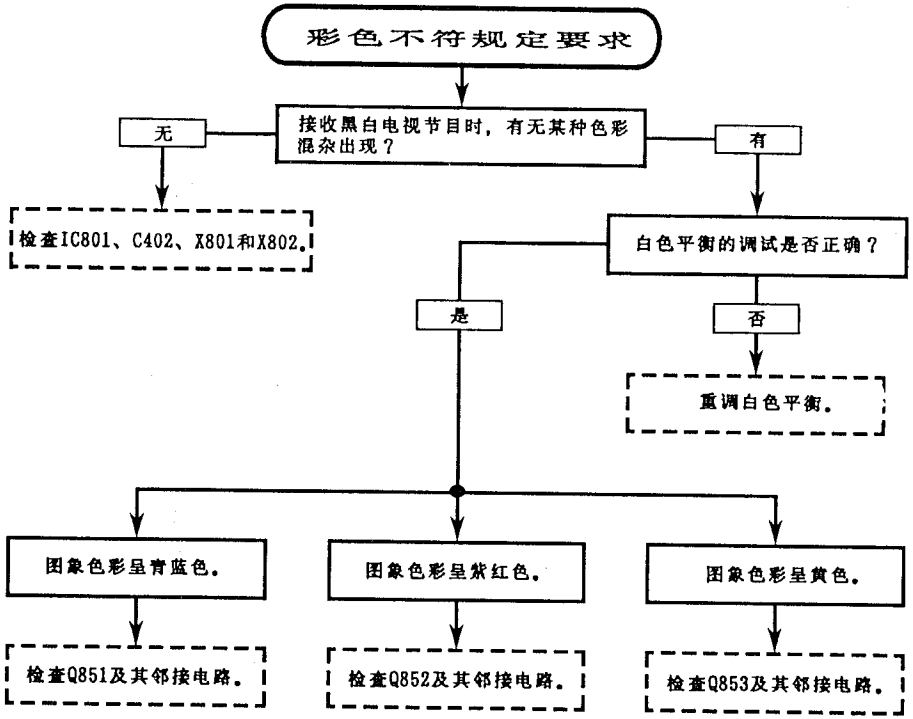
TROUBLE SHOOTING TABLE (Continued)

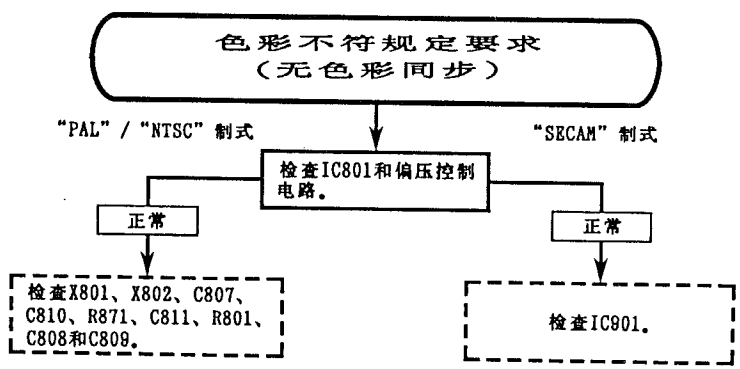

NO SPECIFIC COLOUR
Is some colour produced in B/W broadcast reception?
No
Yes
Check IC801, C402, X801, X802.
Is the white balance properly adjusted?
Yes
No
Readjust the white balance.
The picture colour is cyan.
The picture colour is magenta.
The picture colour is yellow.
Check Q851 and its adjacent circuits.
Check Q852 and its adjacent circuits.
Check Q853 and its adjacent circuits.



E23

故障检修表（接上页）



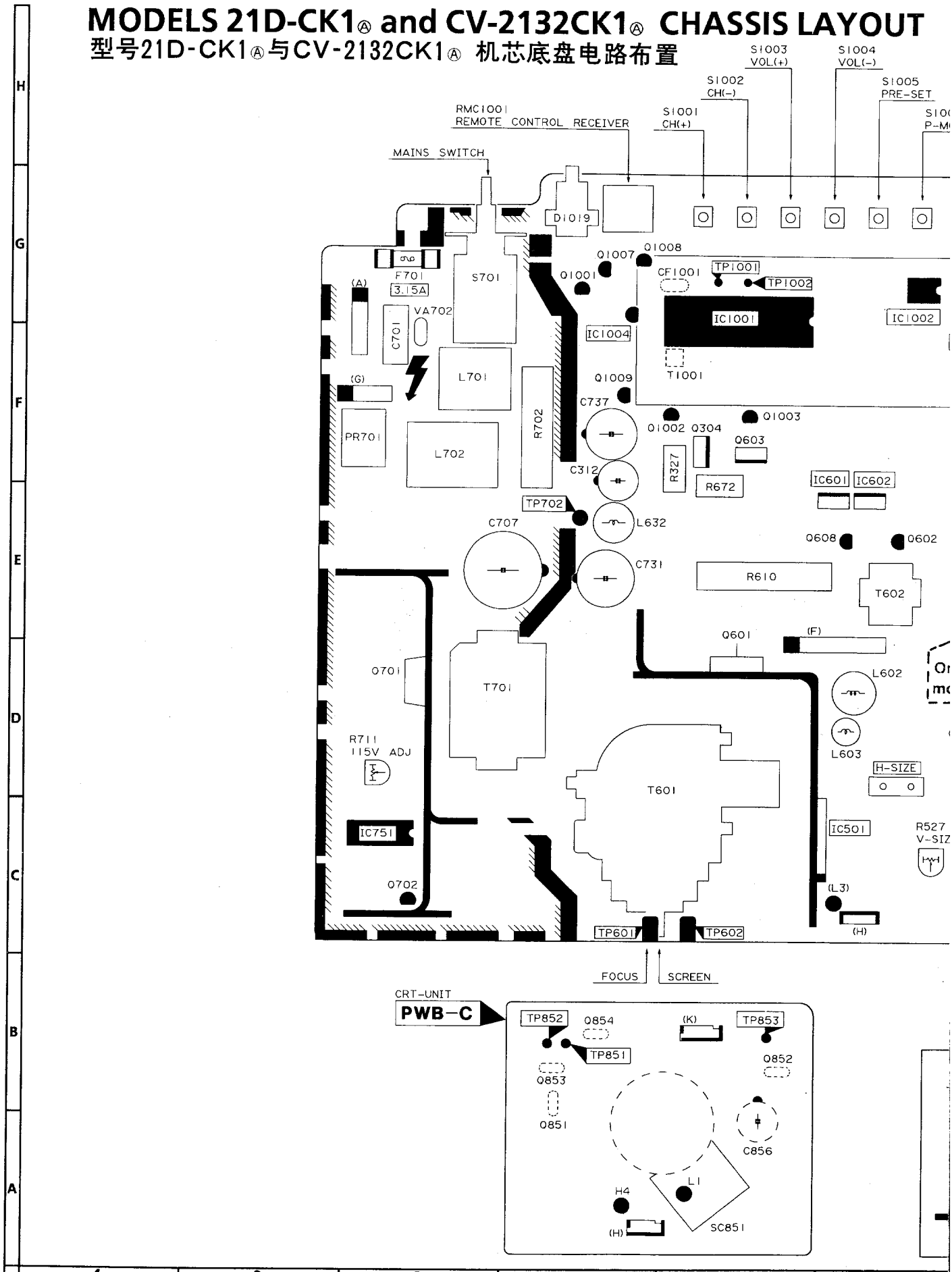


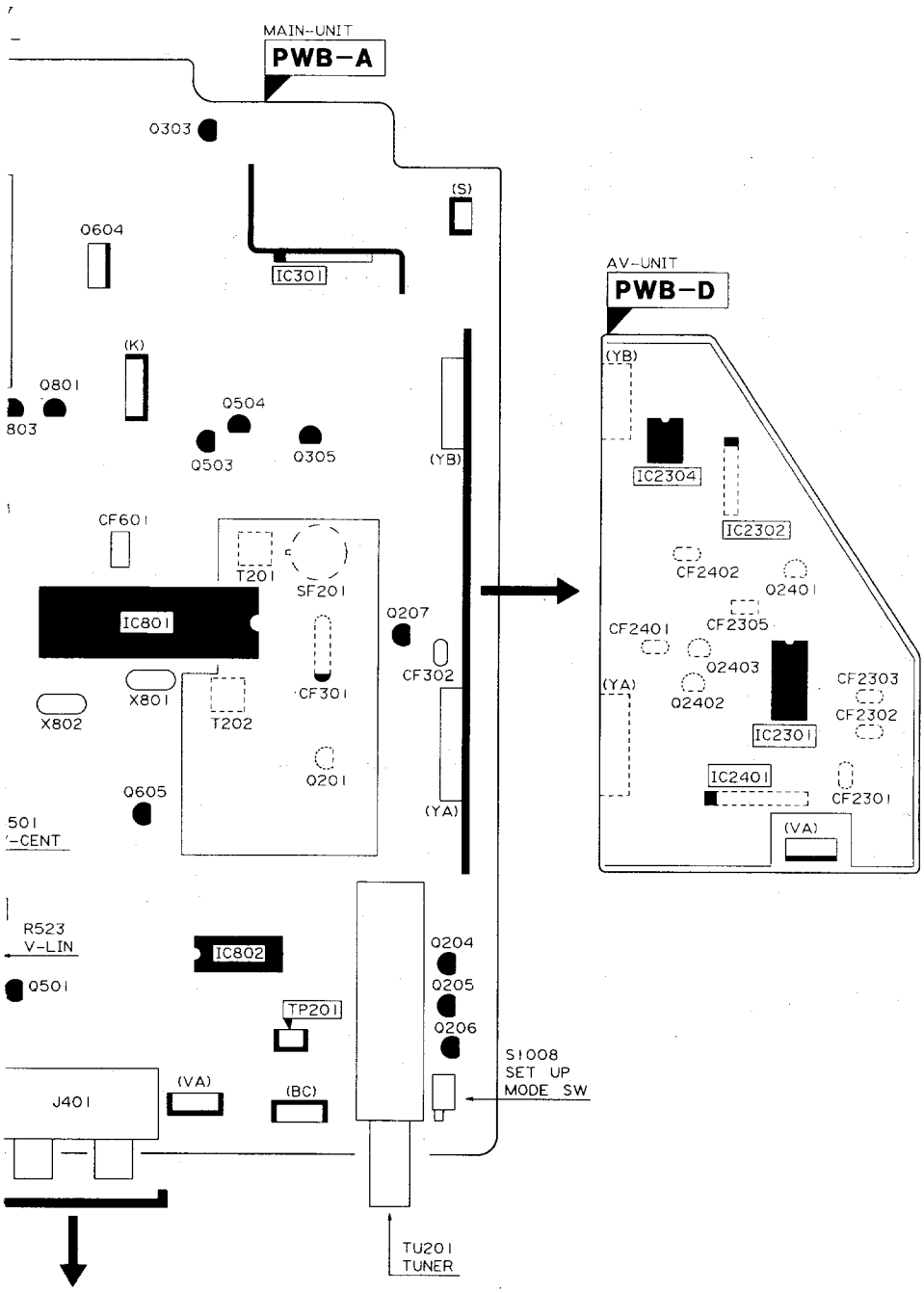
C23

Memo

MODELS 21D-CK1Ⓐ and CV-2132CK1Ⓐ CHASSIS LAYOUT

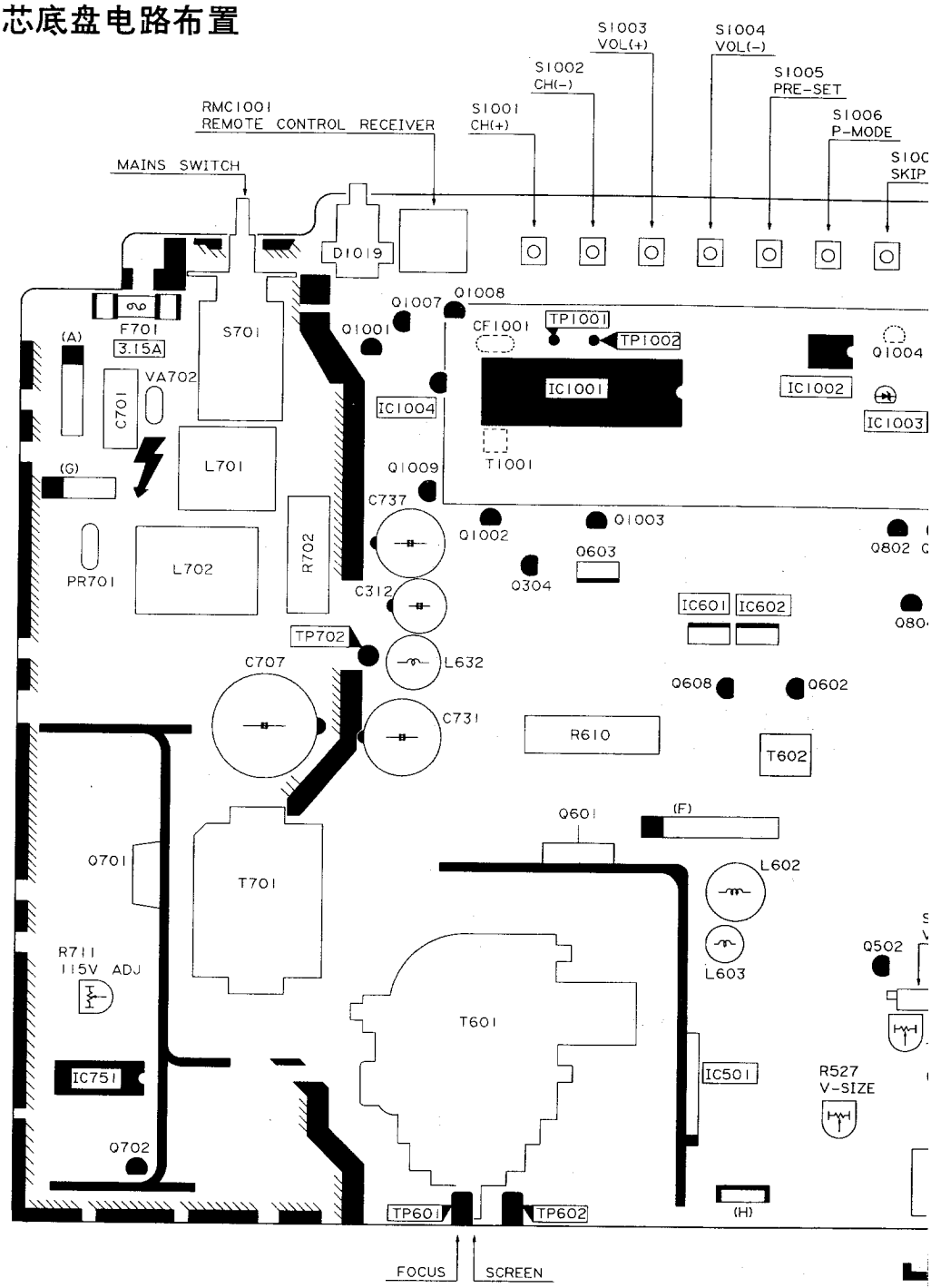
型号21D-CK1Ⓐ与CV-2132CK1Ⓐ 机芯底盘电路布置

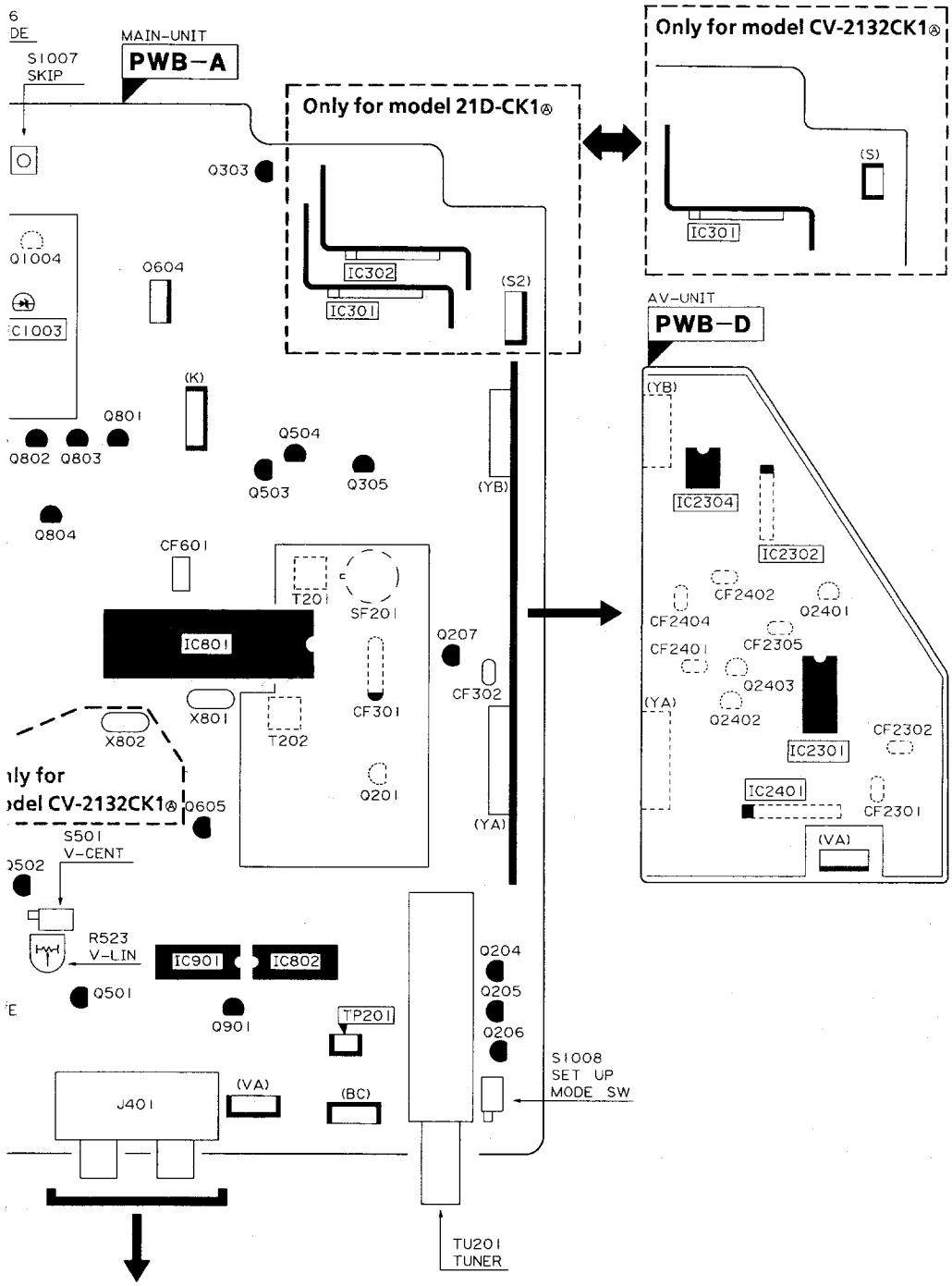


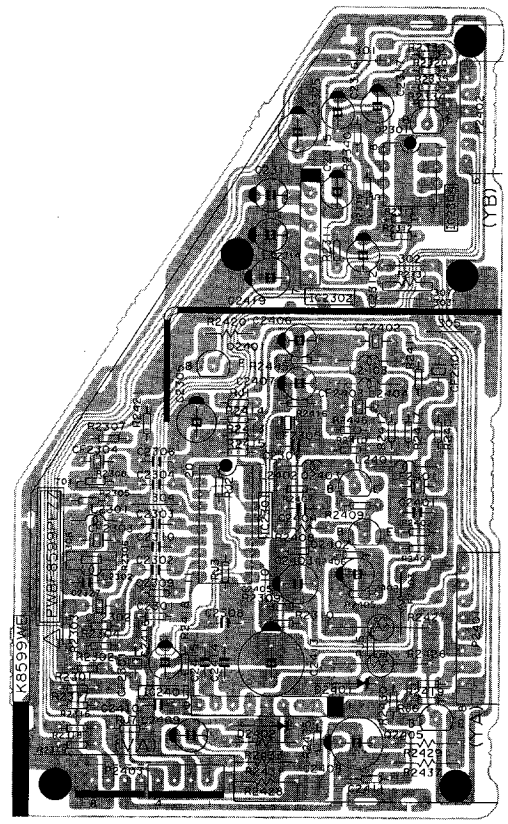

MAIN-UNIT
PWB-A
0303
(S)
0604
IC301
(K)
0801
803
0504
Q503
Q305
(YB)
CF601
T201
SF201
IC801
Q207
CF302
X801
CF301
X802
T202
Q201
Q605
(YA)
501
-CENT
R523
V-LIN
IC802
Q204
Q501
Q205
TP201
Q206
S1008
SET UP
MODE SW
J401
(VA)
(BC)
TU201
TUNER
AV-UNIT
PWB-D
(YB)
IC2304
IC2302
CF2402
Q2401
CF2401
CF2305
Q2403
CF2303
(YA)
Q2402
CF2302
IC2301
IC2401
CF2301
(VA)
IN
AUDIO-IN

MODEL 14D-CMⒶ CHASSIS LAYOUT

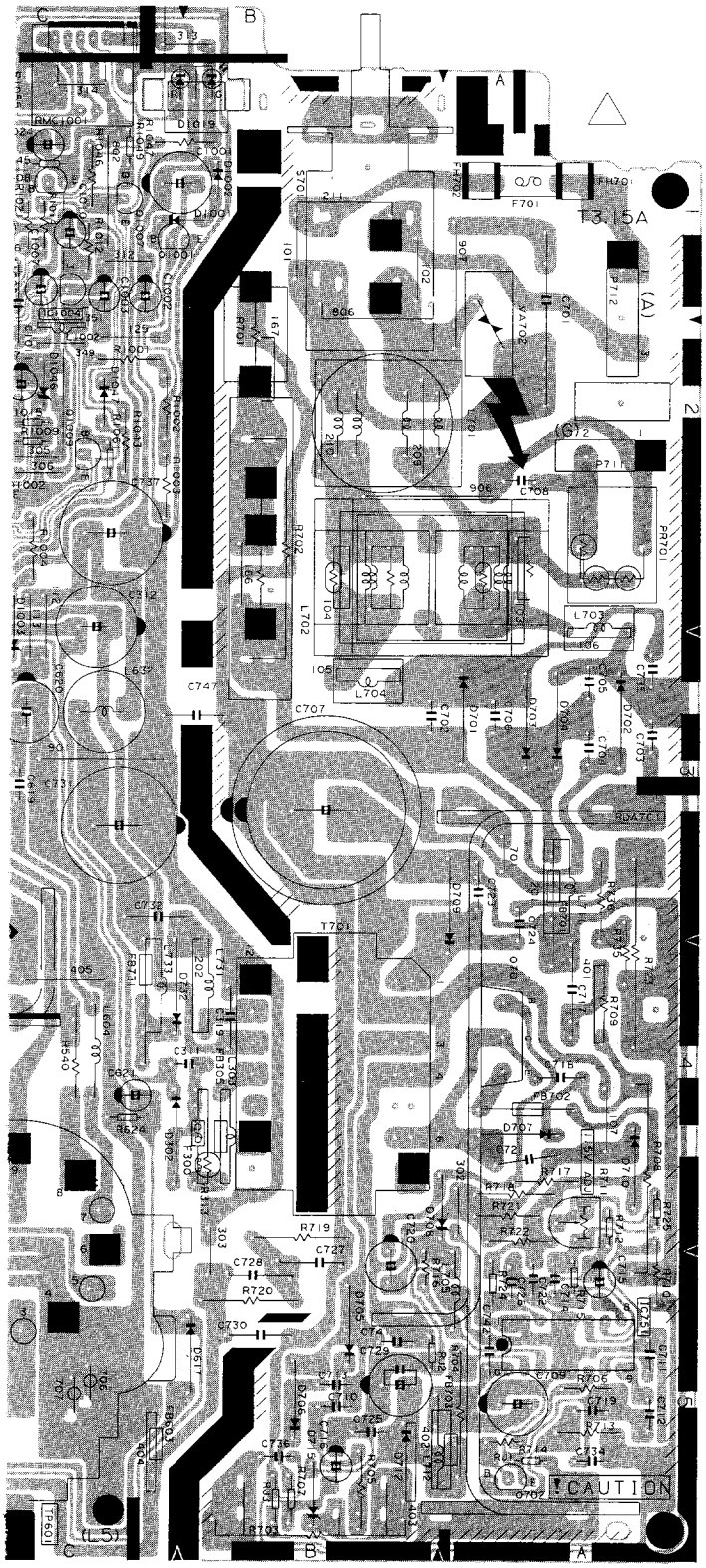
型号14D-CMⒶ 机芯底盘电路布置

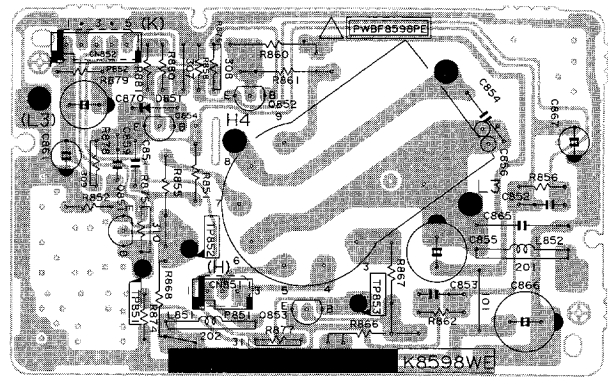



MAIN-UNIT
PWB–A
S1007
SKIP
Only for model 21D-CK1Ⓐ
Only for model CV-2132CK1Ⓐ
Q303
IC302
IC301
(S2)
(S)
Q1004
C1003
Q604
(K)
Q801
Q802
Q803
Q504
Q503
Q305
(YB)
Q804
CF601
T201
SF201
IC801
Q207
CF302
CF301
X801
X802
T202
Q201
Q605
(YA)
S501
V-CENT
Q502
R523
V-LIN
IC901
IC802
Q501
Q901
TP201
Q204
Q205
Q206
S1008
SET UP
MODE SW
J401
(VA)
(BC)
TU201
TUNER
AV-UNIT
PWB–D
IC2304
IC2302
CF2402
Q2401
CF2404
CF2305
CF2401
Q2403
Q2402
IC2301
CF2302
IC2401
CF2301
VIDEO-IN
AUDIO-IN



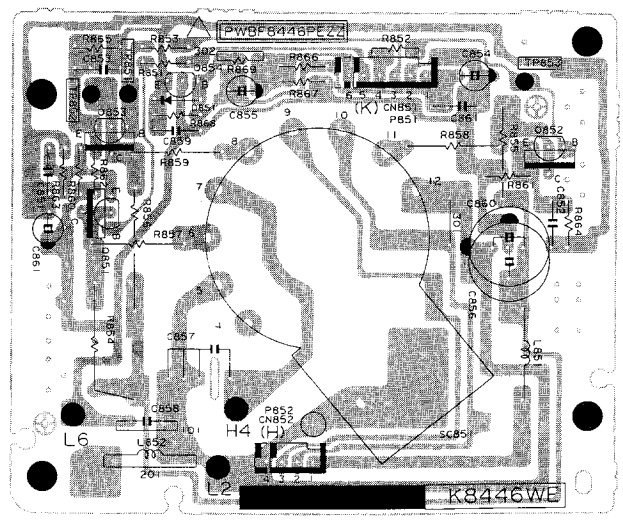
PWB-D: AV Unit
声象电路装置





PWB-C: CRT Socket Unit (14D-CMⒶ)

CRT管座电路装置
（型号14D-CMⒶ）



PWB-C: CRT Socket Unit (21D-CK1Ⓐ and CV-2132CK1Ⓐ)

CRT管座电路装置
（型号21D-CK1与CV-2132CK1Ⓐ）

电路装置

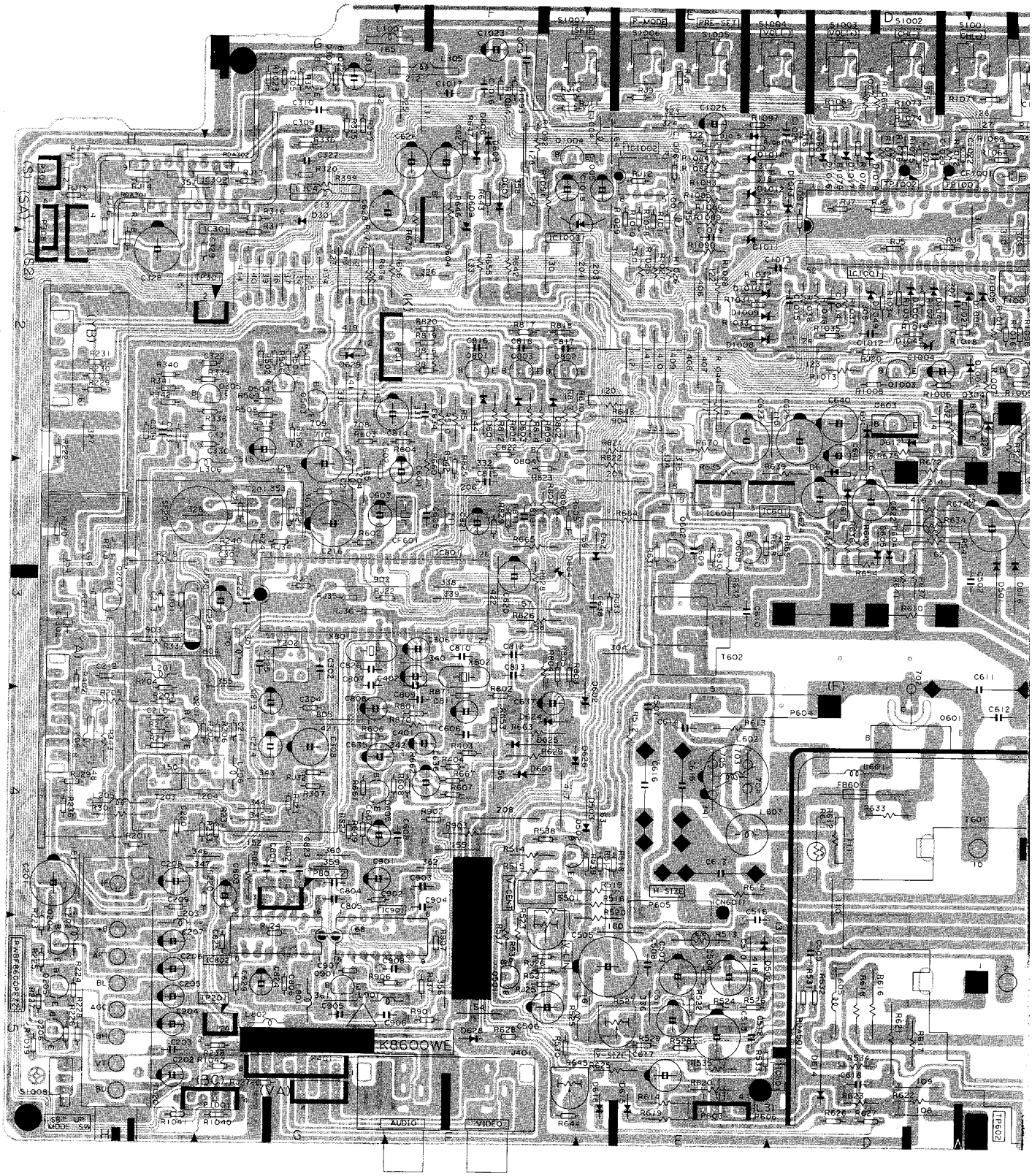
7	8	9	10	11	12

PRINTED WIRING BOARD ASSEMBLIES

(All the PWBs here are shown as viewed from their wiring sides.)

印刷电路板的组装件

（这里所有印刷电路都是从线路贴置侧显示出来的。）

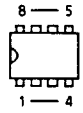


PWB-A: Mother Unit 主

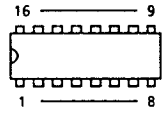
SOLID STATE DEVICE BASE DIAGRAM

固体器件基座图

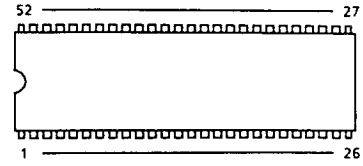
TOP VIEW 俯视图



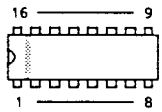
iX2448CE
UPC358C



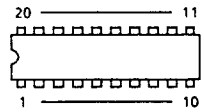
iX1779CE



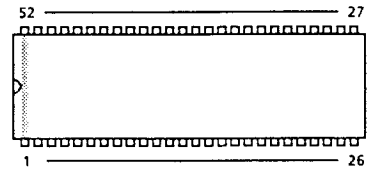
iX2551CE



TDA4661
M52325P

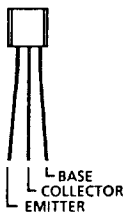


M52317SP
TDA4661

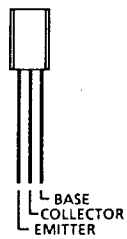


M52343SP

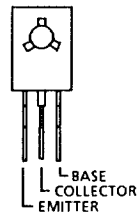
SIDE VIEW 侧视图



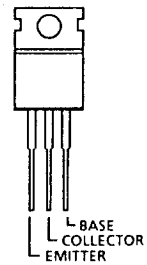
2SA1015
2SC1815
2SC1906
2SC383
2SC945



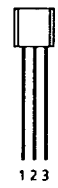
2SC2229
2SC2236
2SC2271



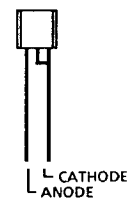
2SC3417



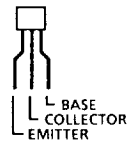
2SD880



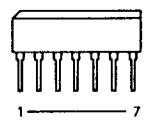
PST529C2



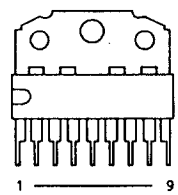
iX0037CE



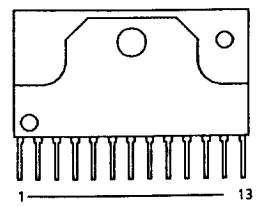
2SA1348
2SC3399



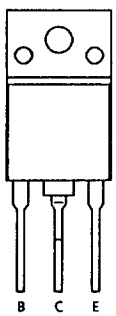
TA7347P



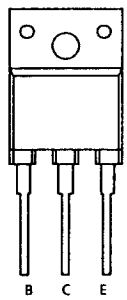
TDA7056A



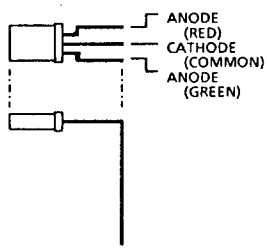
LA7837



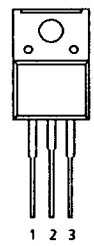
2SD2095



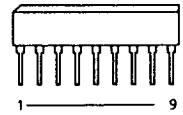
2SD1883
2SD1884



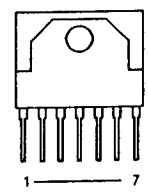
PX0290CE



TA7808S
TA7809S



LA7956



iX0640CE

DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTE:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACEING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" (▒▒▒▒▒) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (▬ ▪ ▬) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER
BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTE:

1. The unit of resistance "ohm" is omitted (K = 1000 ohms, M = Megaohm).
2. All resistors are 1/8 watt, unless otherwise noted.
3. All capacitors are μF, unless otherwise noted (P = $\mu\mu$F).

VOLTAGE MEASUREMENT CONDITIONS:

1. Voltages in parenthesis measured with no Signal.
2. Voltages without parenthesis measured with 3mV B & W or Colour-Signal.
3. All the voltages in each point are measured with VTVM.

WAVEFORM MEASUREMENT CONDITIONS:

1. Colour bar generator signal of 2.2 V peak to peak applied at pin (52) of IC801.
2. Approximately 4.0 V AGC bias.

电路原理图的说明

安全注意事项：

1. 更换电路元件时，必须先拔出电源插头，切断电源。
2. 机芯底盘电路处工作状态时，应注意电路中半导体元件散热片高电位可能导致的电击危险。

安全使用注意要点：

标有"⚠"(▒▒▒▒▒)的元件为对保证本机长久的安全使用起重要的元件。更换这些元件时，必须使用规定的纯正正牌元件，以保证本机的使用安全以及使用寿命。

维修注意事项：

电路中由点划线（ ▬ ▪ ▬ ）所围部分为与交流电源直接相接线路。对这些部分的线路进行维修时，应于本机与交流电源之间用隔离变压器相接，以防止不意的电击之危险。

电路单位说明：

1. 电阻欧姆(Ω)单位予以略记（K=千欧姆，M=兆欧姆）。
2. 除特别说明者外，图中电阻功率均为1/8瓦特。
3. 除特别说明者（P=微微法拉）外，图中电容单位均为μF(微法拉）。
4. 除特别说明者外，图中二极管均为1SS119。

电压测定条件：

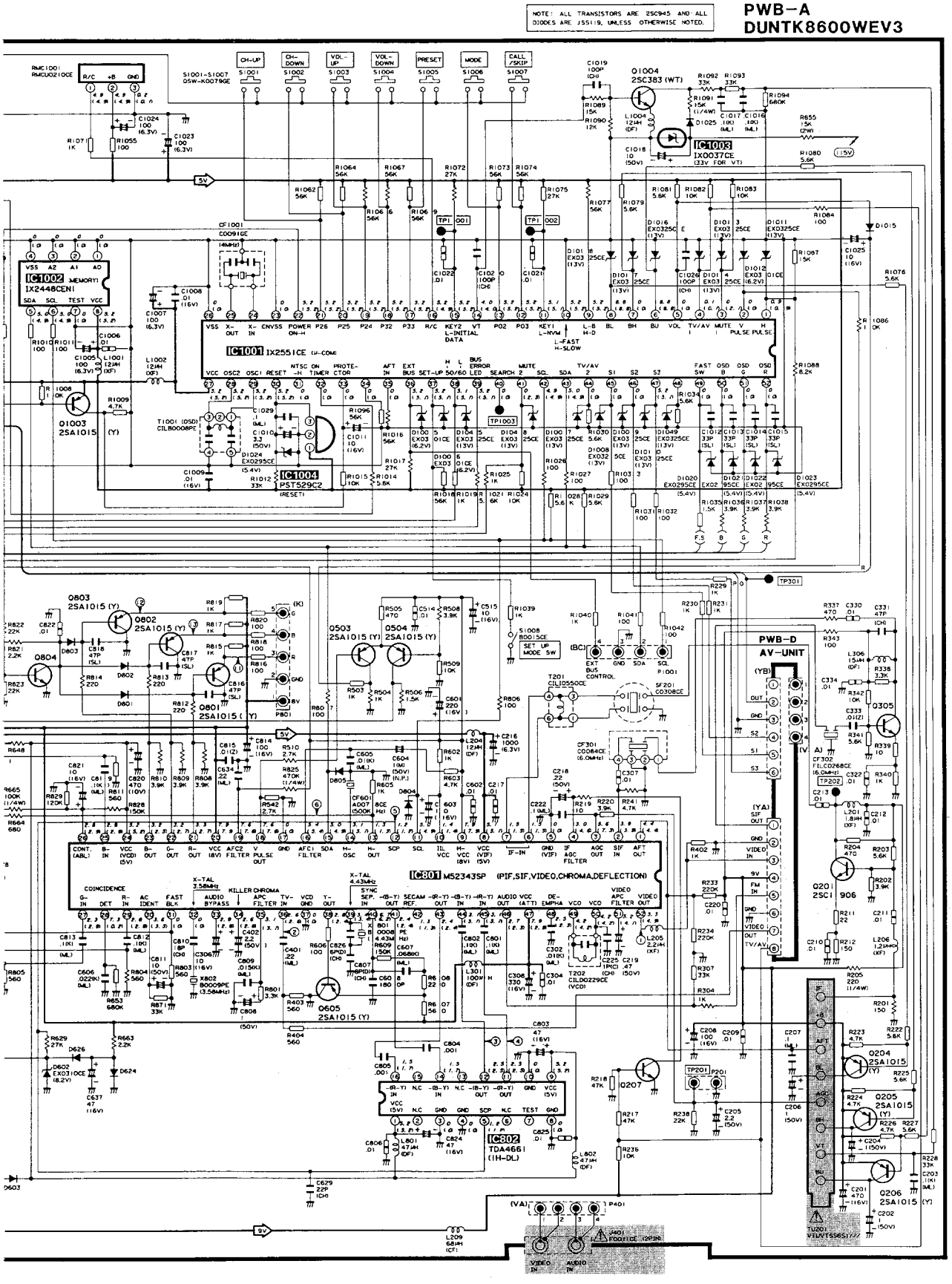
1. 括号外的电压值为PAL制式彩色信号状态下所测。
2. 括号中的电压值为无信号状态下所测。
3. 所有的电压值均由高阻抗电压计所测。

波形测定条件：

1. 施加于IC801的销(52)处的彩条信号应为2.2Vp-p。
2. 调谐器AGC（自动增益控制）电压约为4V。

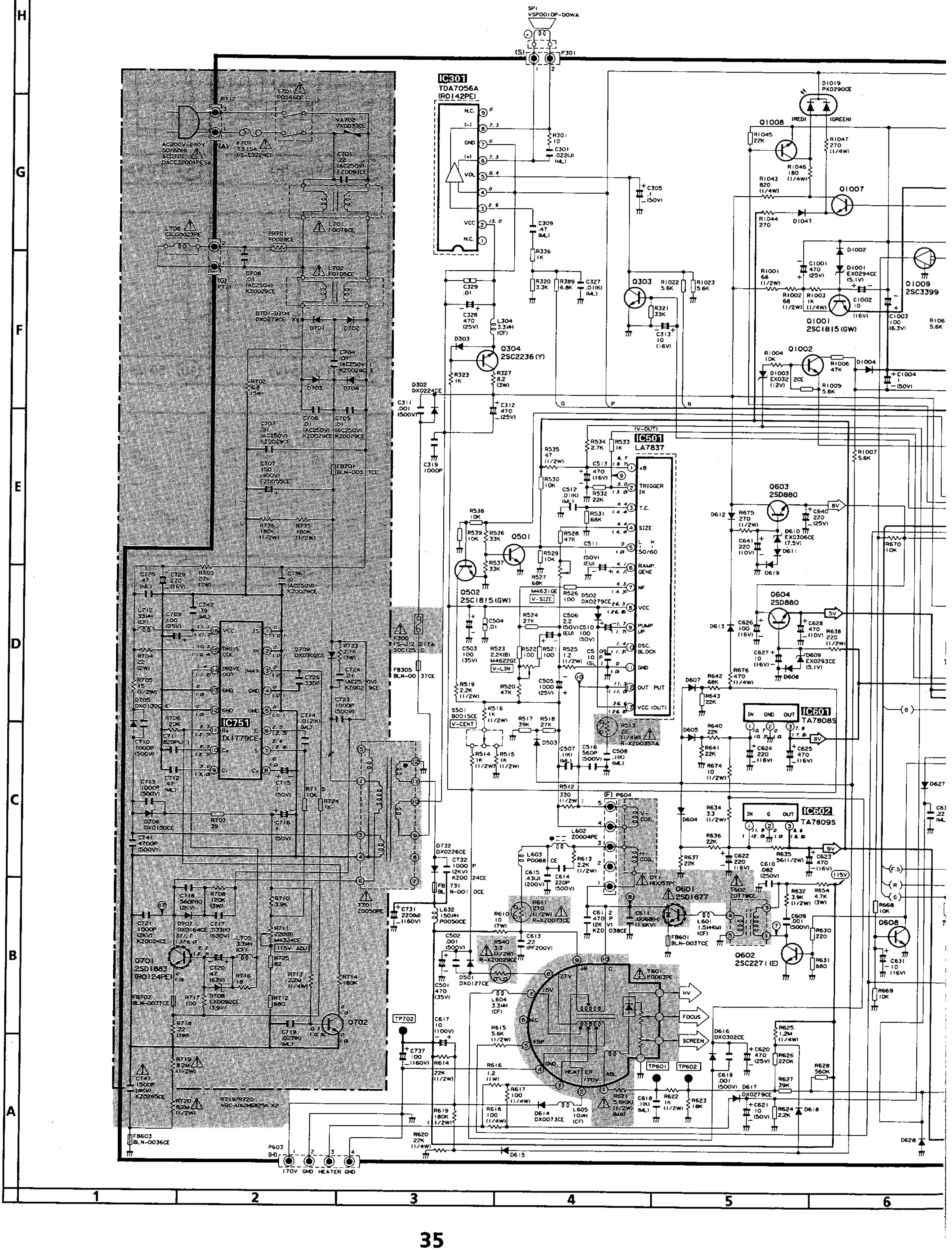
原理图

PWB—A
DUNTK8600WEV3

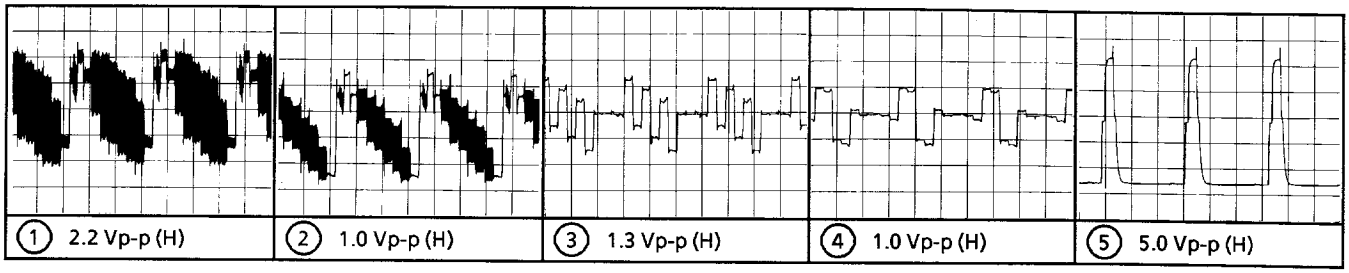


MODEL 14D-CMⒶ SCHEMATIC DIAGRAM 型号14D-CMⒶ 电路

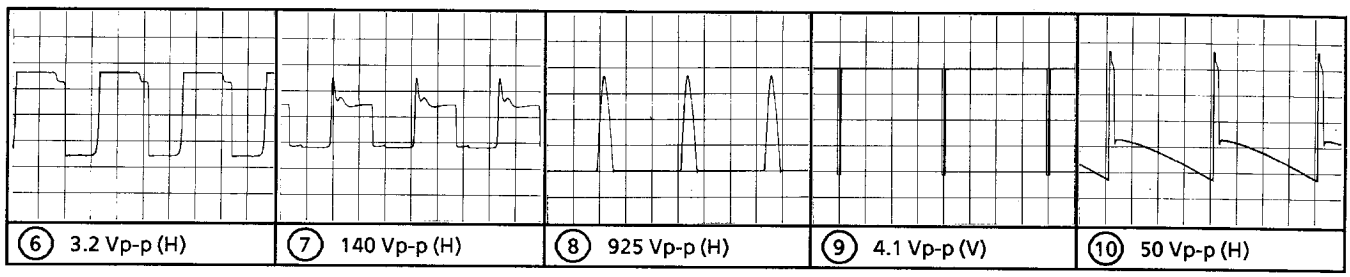
■ Mother Unit ■母体电路装置



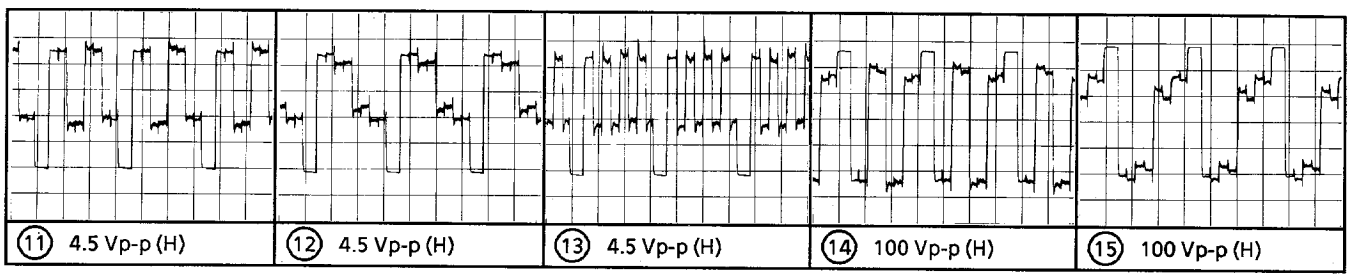
WAVEFORMS
波形图



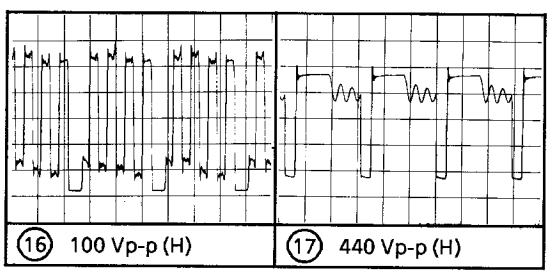
① 2.2 Vp-p (H) ② 1.0 Vp-p (H) ③ 1.3 Vp-p (H) ④ 1.0 Vp-p (H) ⑤ 5.0 Vp-p (H)



⑥ 3.2 Vp-p (H) ⑦ 140 Vp-p (H) ⑧ 925 Vp-p (H) ⑨ 4.1 Vp-p (V) ⑩ 50 Vp-p (H)



⑪ 4.5 Vp-p (H) ⑫ 4.5 Vp-p (H) ⑬ 4.5 Vp-p (H) ⑭ 100 Vp-p (H) ⑮ 100 Vp-p (H)

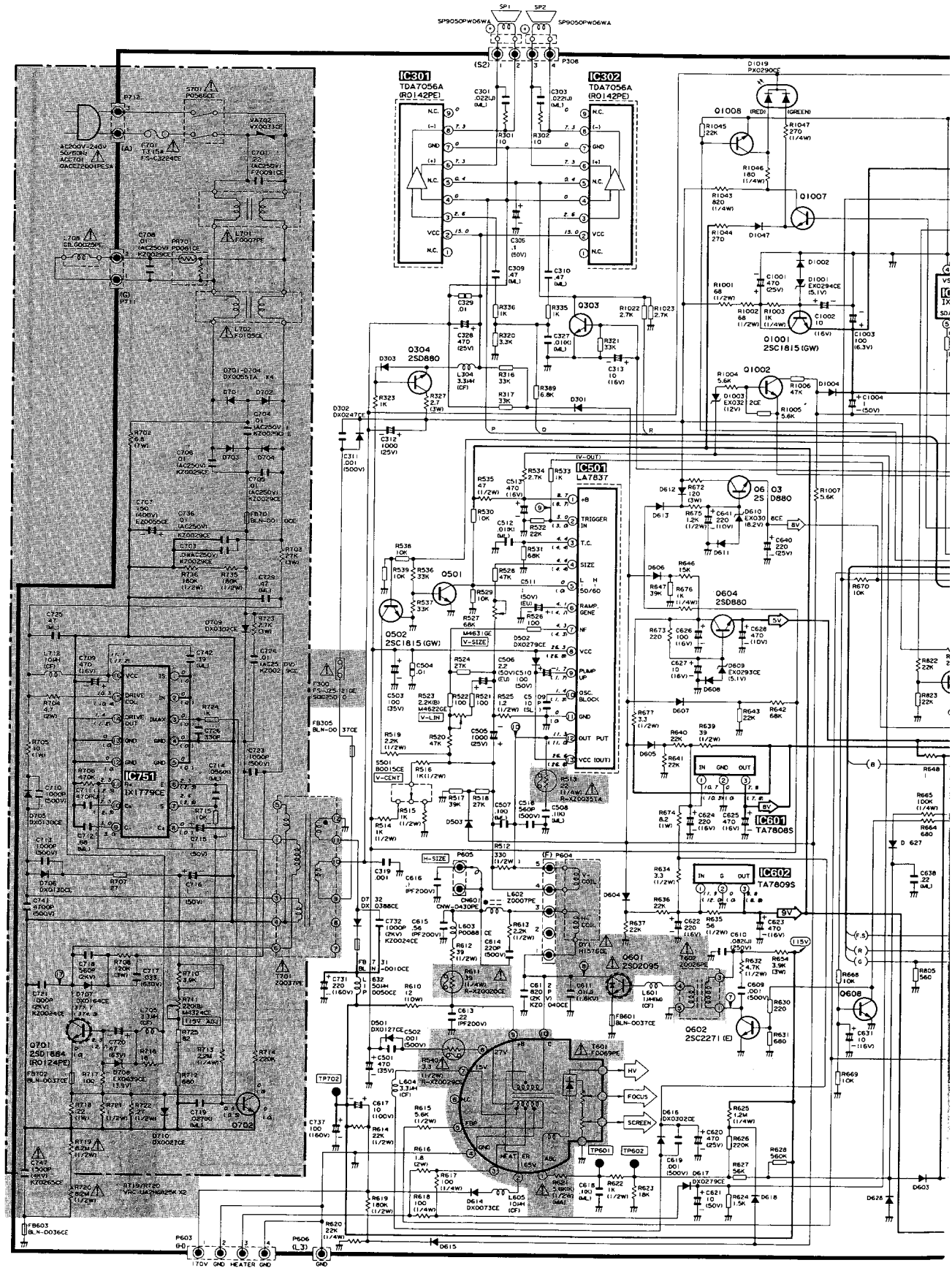


⑯ 100 Vp-p (H) ⑰ 440 Vp-p (H)

MODEL 21D-CK1Ⓐ SCHEMATIC DIAGRAM 型号21D-CK1Ⓐ 电路原

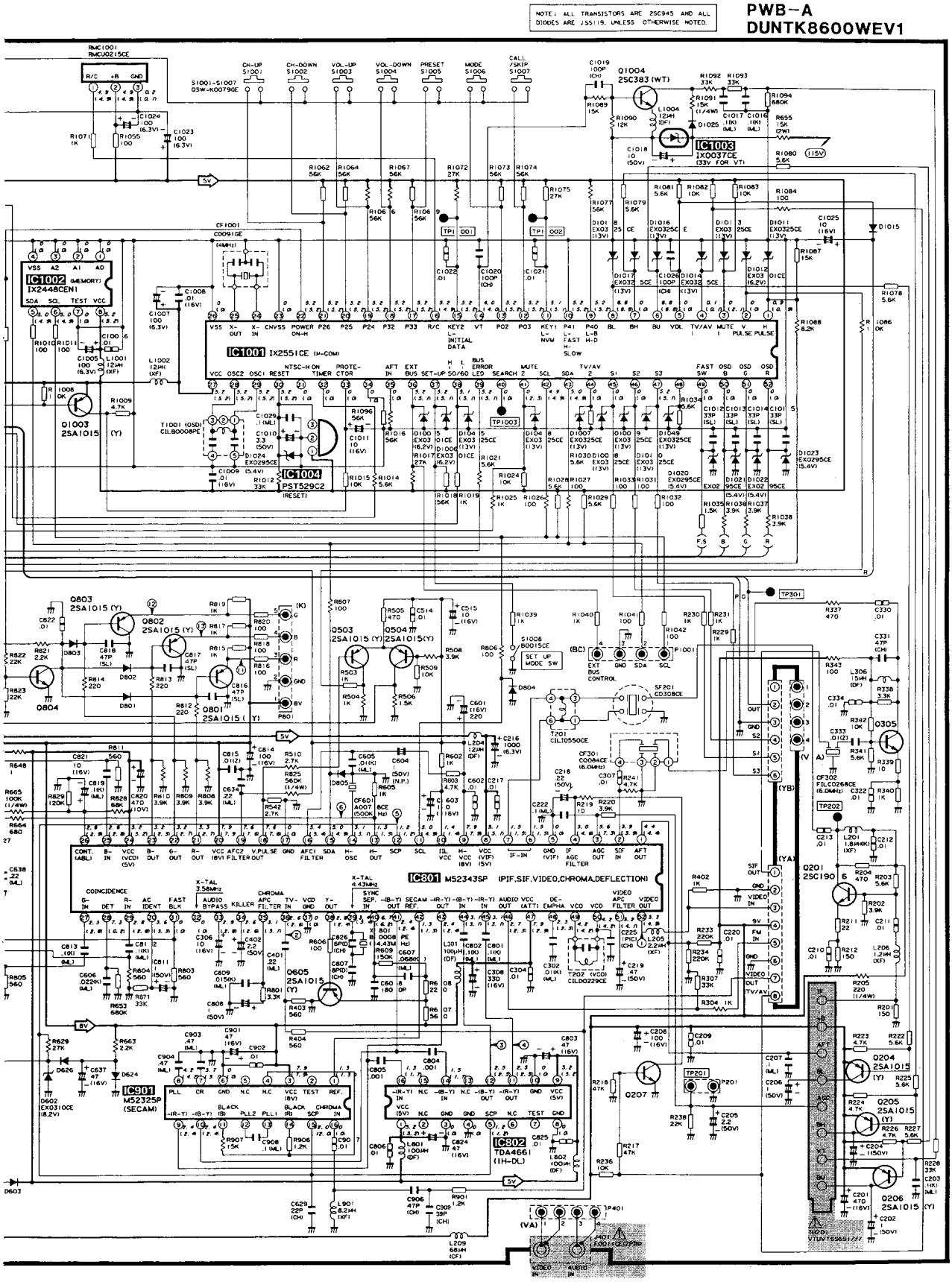
■ Mother Unit

■母体电路装置



1Ⓐ 电路原理图

PWB—A
DUNTK8600WEV1


NOTE: ALL TRANSISTORS ARE 2SC945 AND ALL DIODES ARE 1SS119, UNLESS OTHERWISE NOTED.
IC1001 IX2551CE
IC1002 IX2448CEN1
IC1003 IX0037CE
IC1004 PST529C2
IC801 M52343SP (PIF,SIF,VIDEO,CHROMA,DEFLECTION)
IC901 M52325P (SECAM)
IC802 TDA4661 (1H-DL)
Q1004 2SC383 (WT)
Q1003 2SA1015 (Y)
Q0803 2SA1015 (Y)
Q0802 2SA1015 (Y)
Q0804
Q0801 2SA1015 (Y)
Q0503 2SA1015 (Y)
Q0504 2SA1015 (Y)
Q0605 2SA1015 (Y)
Q0201 2SC1906
Q0207
Q0204 2SA1015 (Y)
Q0205 2SA1015 (Y)
Q0206 2SA1015 (Y)
TP1001
TP1003
TP201
TP202
TP301
TP401
SF201 CD30BCE
SF301 CD84CE
SF302 FILCO268CE
T201 CIL10550CE
T202 (VCO) CIL00229CE
L1001 12μH (XF)
L1002 12μH (XF)
L204 12μH (DF)
L205 2.2μH (XF)
L209 68μH (CF)
L801 100μH (DF)
L802 100μH (DF)
L901 8.2μH (XF)
L201 1.8μH (XF)
L206 1.2μH (XF)
L301 100μH (DF)
CF1001 C00916E
CF601 A007 (500K)
CF602 A007 (4.43M)
S1001-S1007 SW-K0079GE
S1008 B0015CE
D1025
D1027
D1028
D1029
D1030
D1031
D1032
D1033
D1034
D1035
D1036
D1037
D1038
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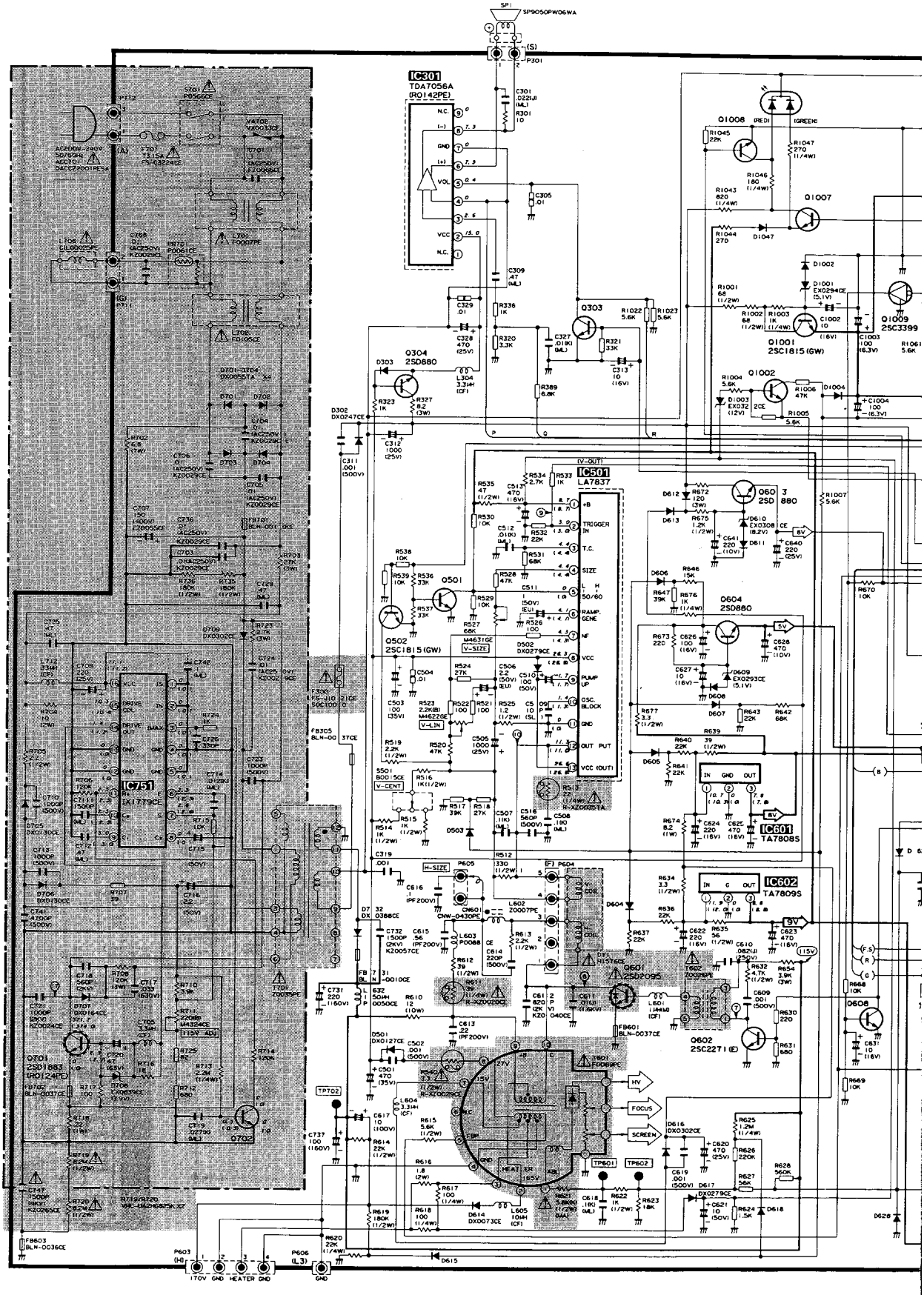
D1062
D1063
D1064
D1065
D1066

MODEL CV-2132CK1Ⓐ SCHEMATIC DIAGRAM 型号CV2132CK

■ Mother Unit

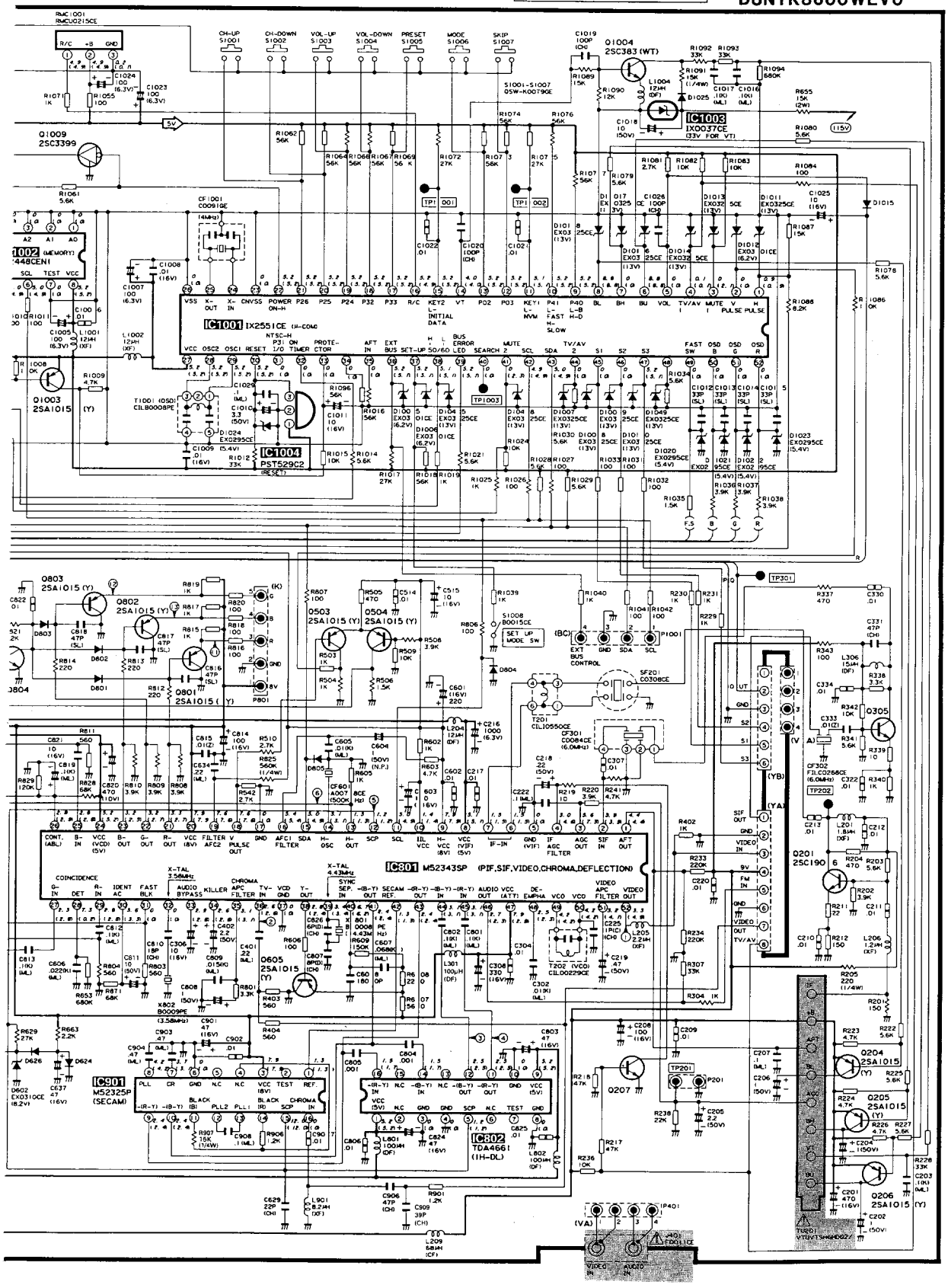
■母体电路装置



理图

NOTE: ALL TRANSISTORS ARE 2SC945 AND ALL DIODES ARE 1SS119, UNLESS OTHERWISE NOTED.

PWB—A
DUNTK8600WEV0

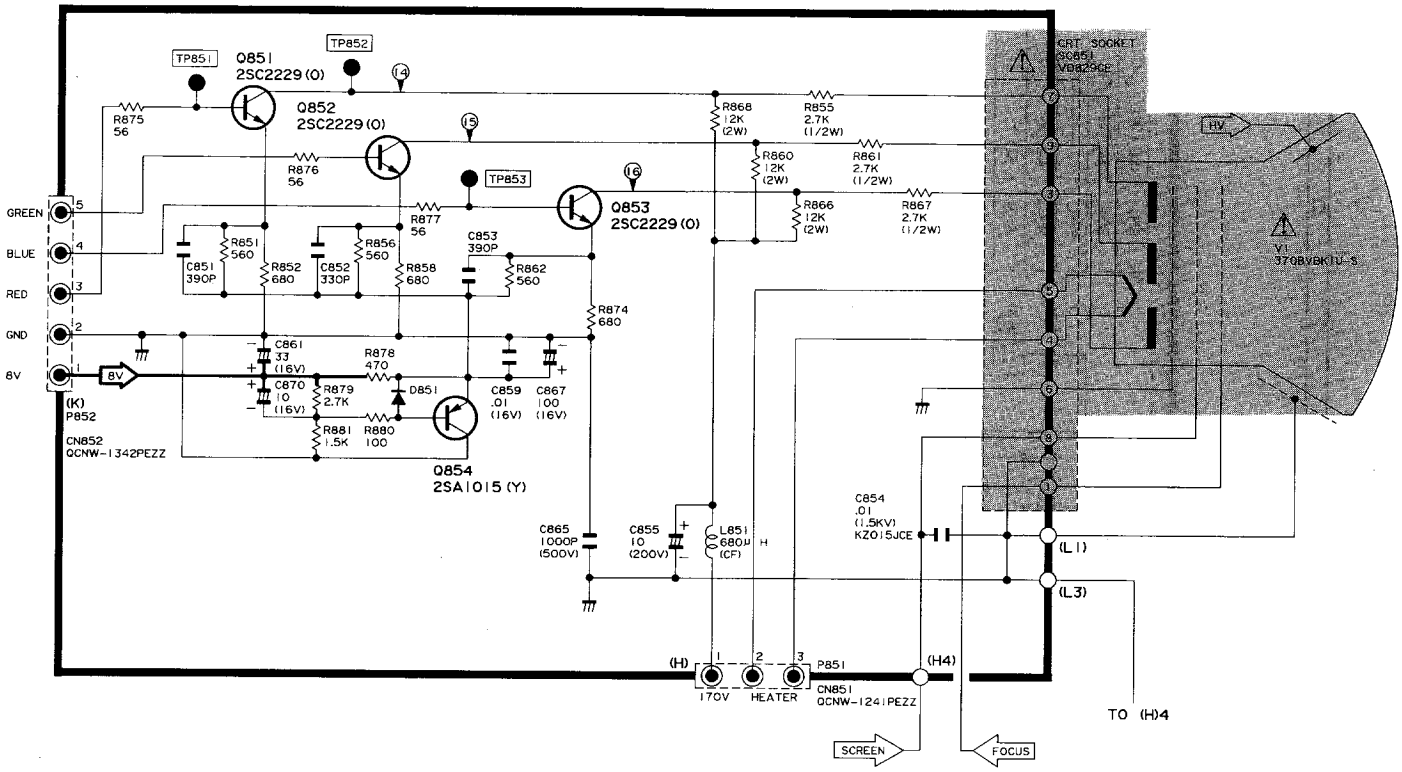


7	8	9	10	11	12

SCHEMATIC DIAGRAM 电路原理图

■ CRT Socket Unit (14D-CMⒶ) ■CRT管座电路装置(型号14D-CMⒶ)

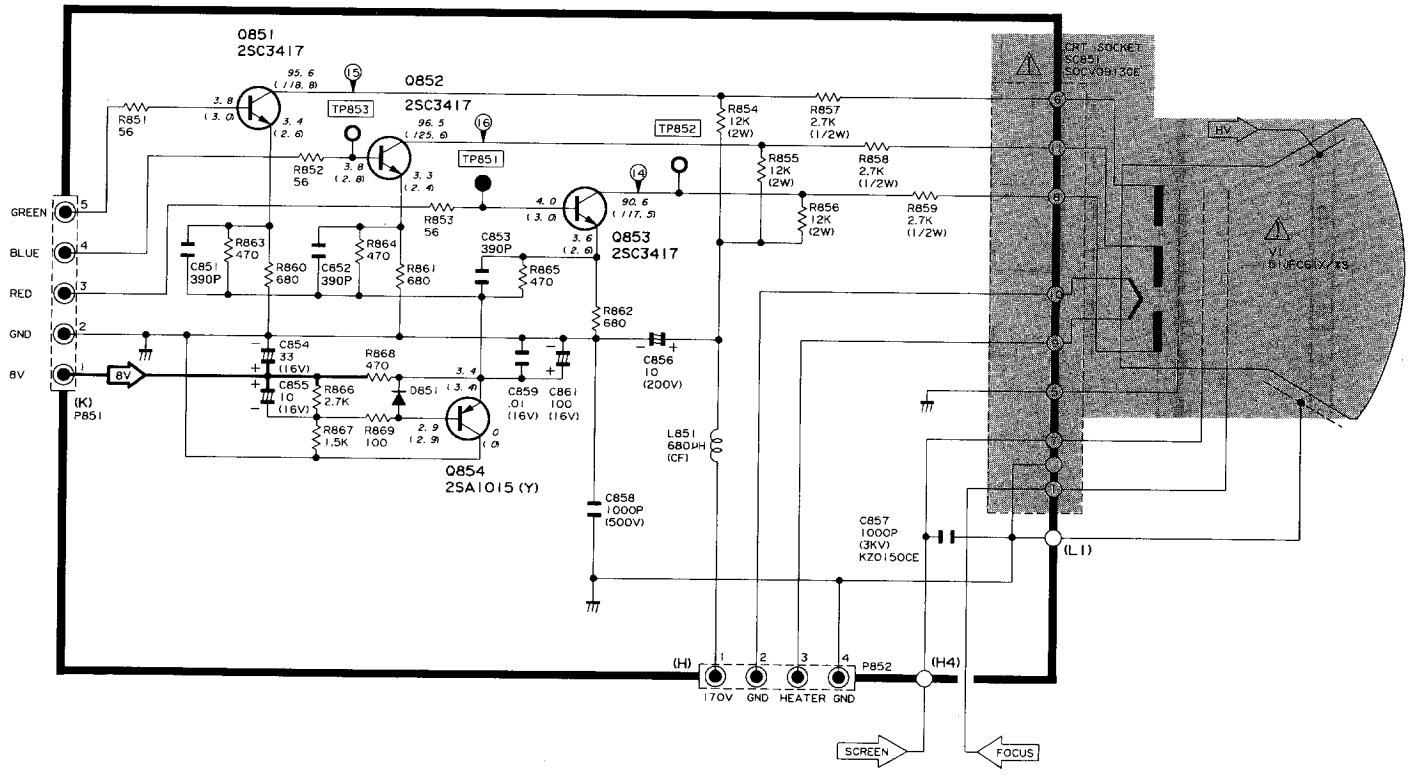
PWB—C
DUNTK8598WEV0



■ CRT Socket Unit (21D-CK1Ⓐ and CV-2132CK1Ⓐ)

■CRT管座电路装置(型号21D-CK1Ⓐ与CV-2132CK1Ⓐ)

PWB—C
DUNTK8446WEV1

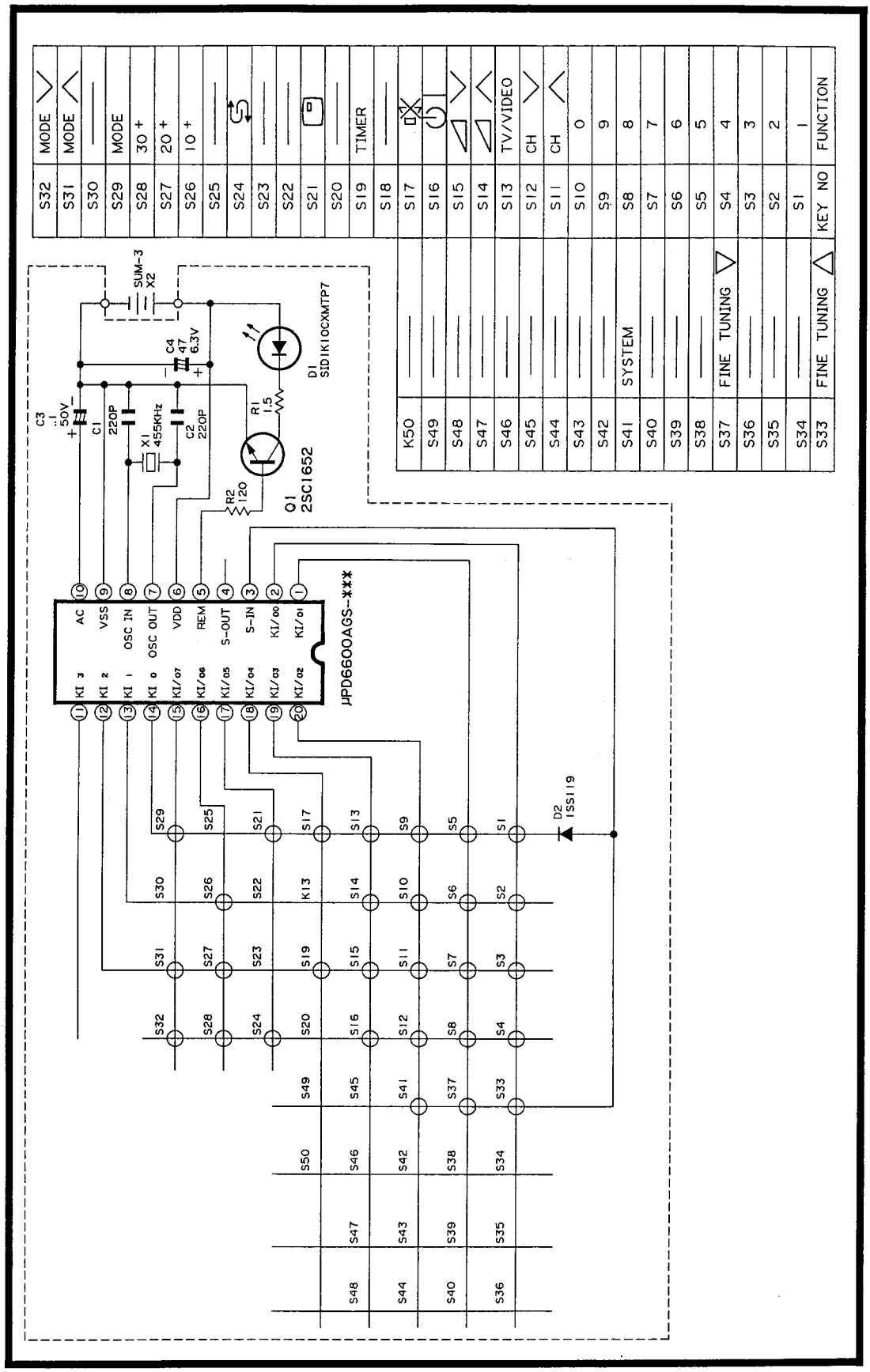


■ Infrared Remote Control Unit

RRMCG1077PESA

NOTE: The parts here shown are supplied as an assembly but not independently.

注意：在更换零件订货时，请以一套为最小单位，切勿以单件订货。

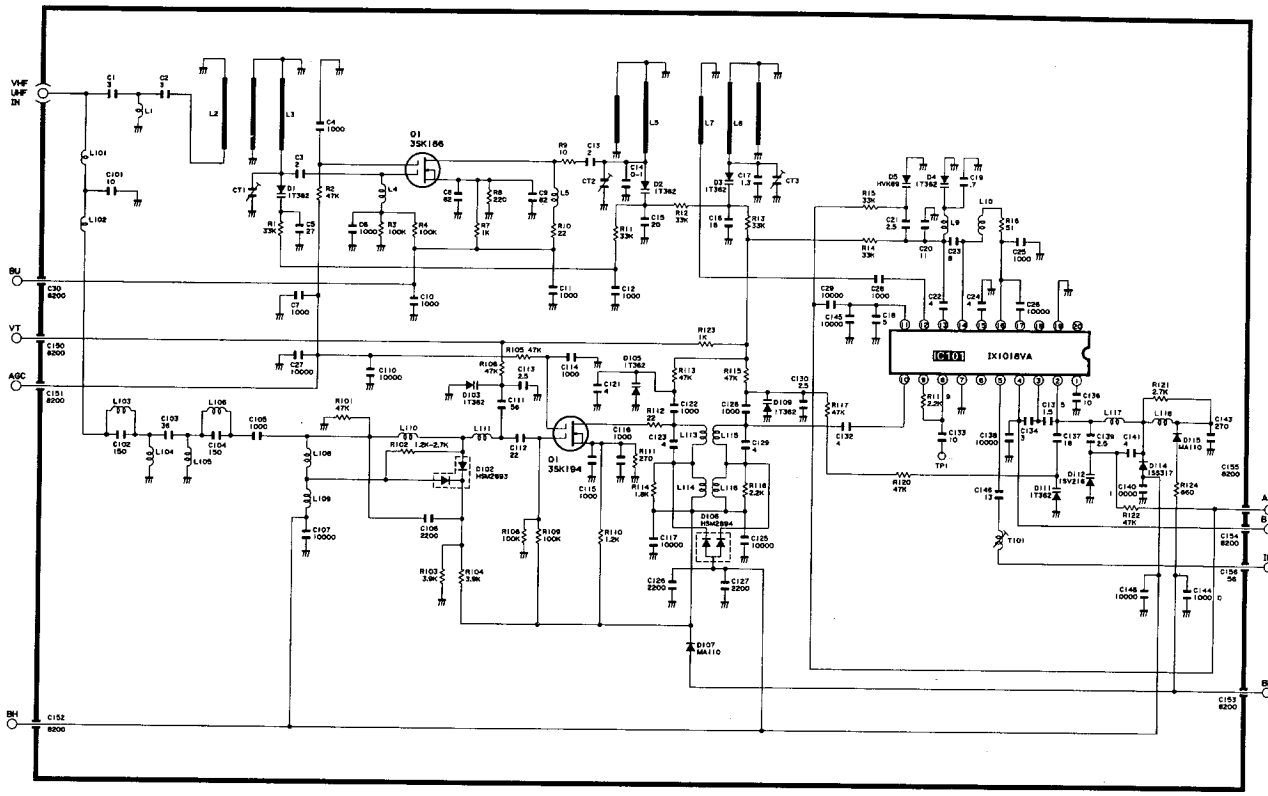


■ Tuner (14D-CMⒶ and CV-2132CK1Ⓐ)调谐器

⚠ VTUVTSS6S1///

NOTE: The parts here shown are supplied as an assembly but not independently.

注意：在更换零件订货时，请以一套为最小单位，切勿以单件订货。

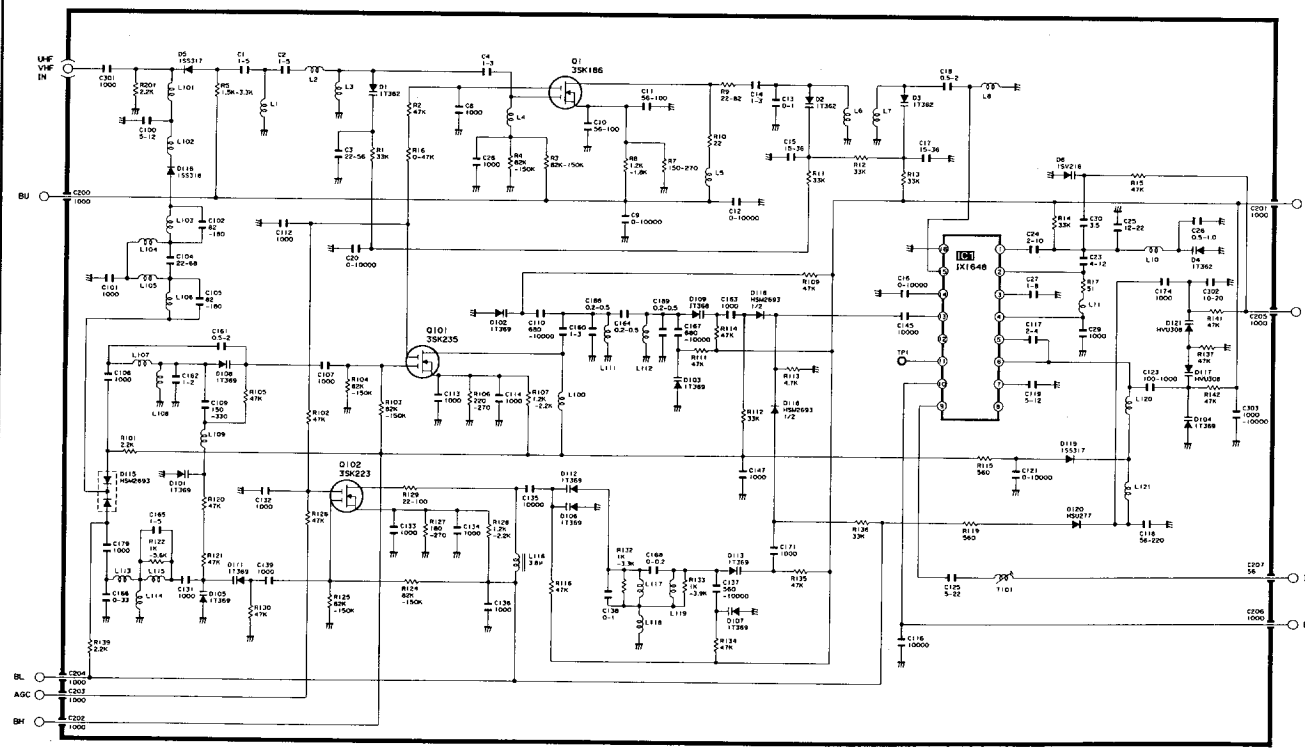


■ Tuner (21D-CK1Ⓐ) 调谐器

⚠ VTUVTSH6HD02/

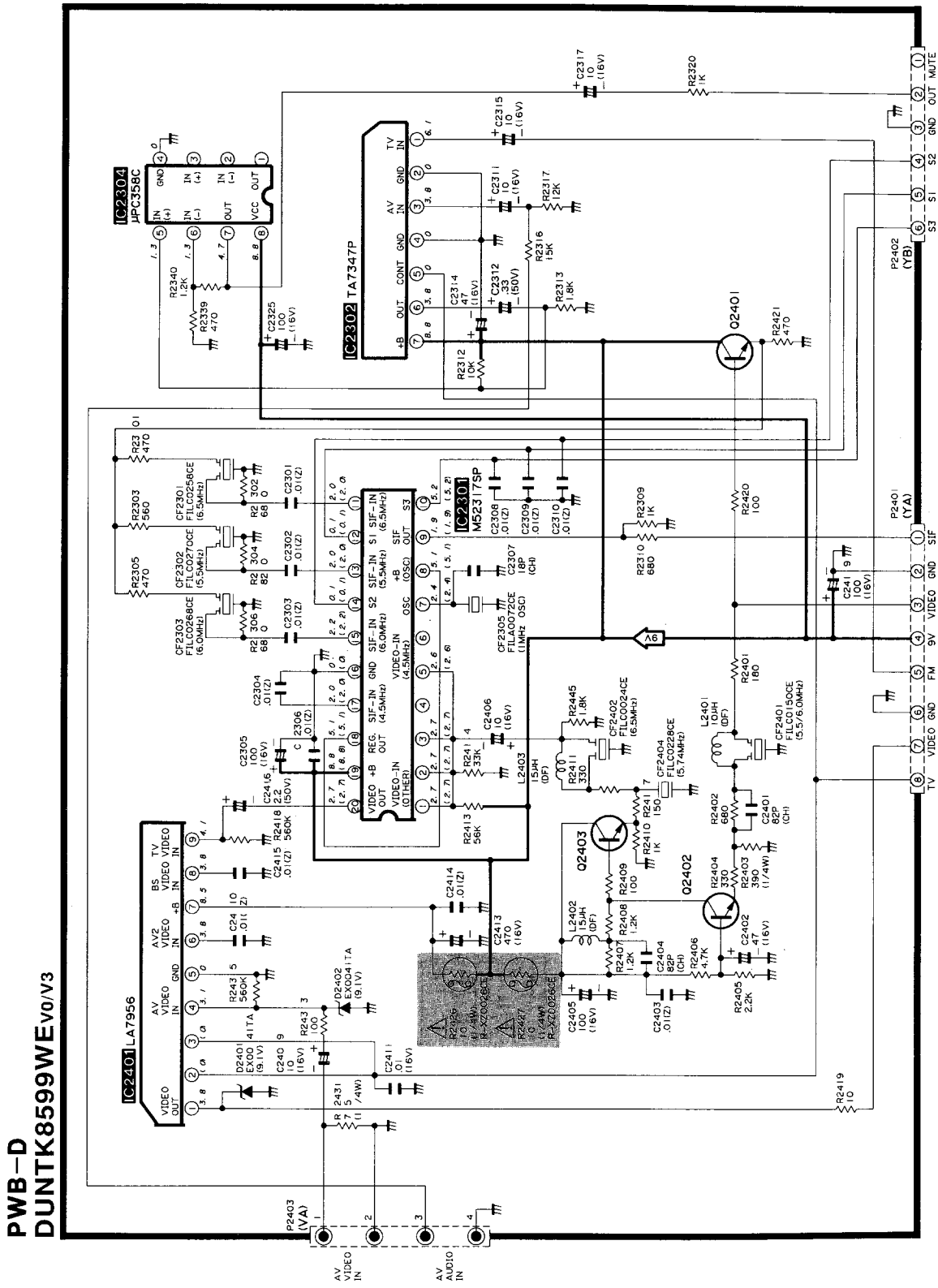
NOTE: The parts here shown are supplied as an assembly but not independently.

注意：在更换零件订货时，请以一套为最小单位，切勿以单件订货。



■ AV Unit (14D-CMⒶ, 21D-CK1Ⓐ and CV-2132CK1Ⓐ)

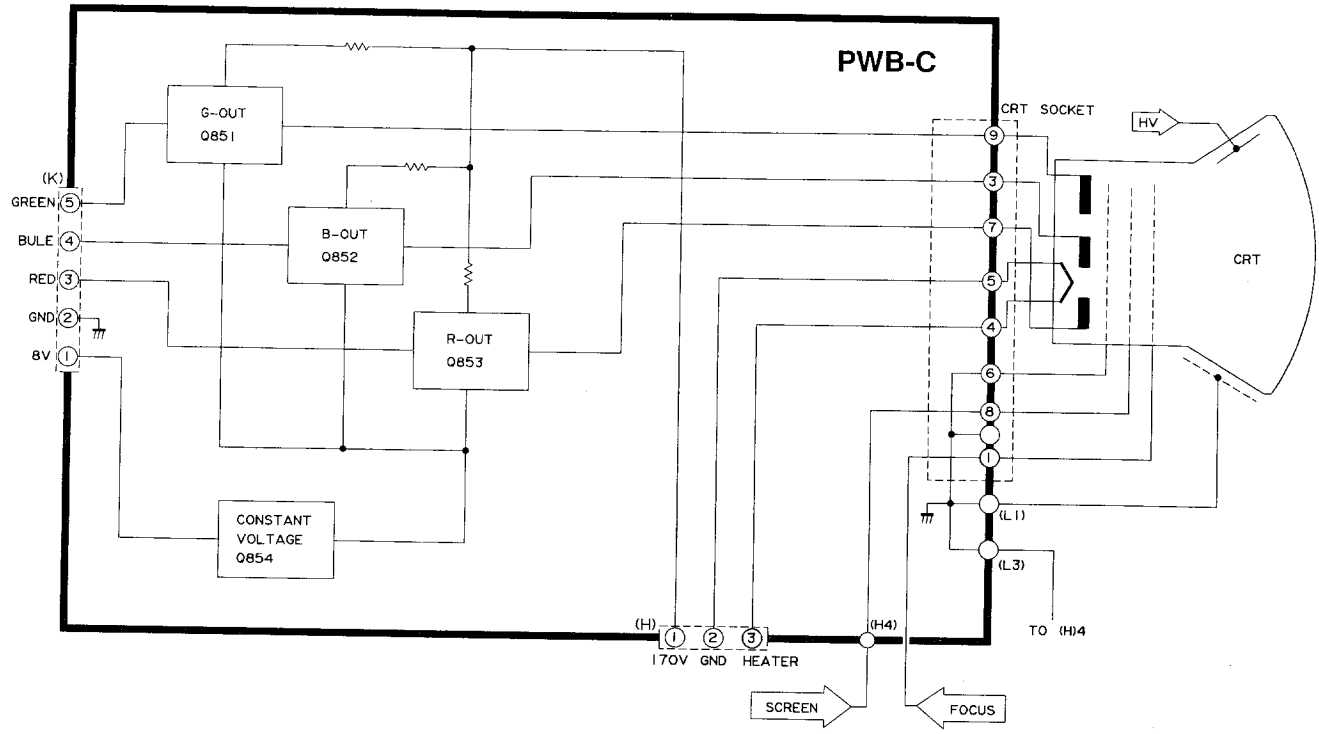
■声象电路装置(型号14D-CMⒶ、21D-CK1Ⓐ与CV-2132CK1Ⓐ)



BLOCK DIAGRAM 电路方框图

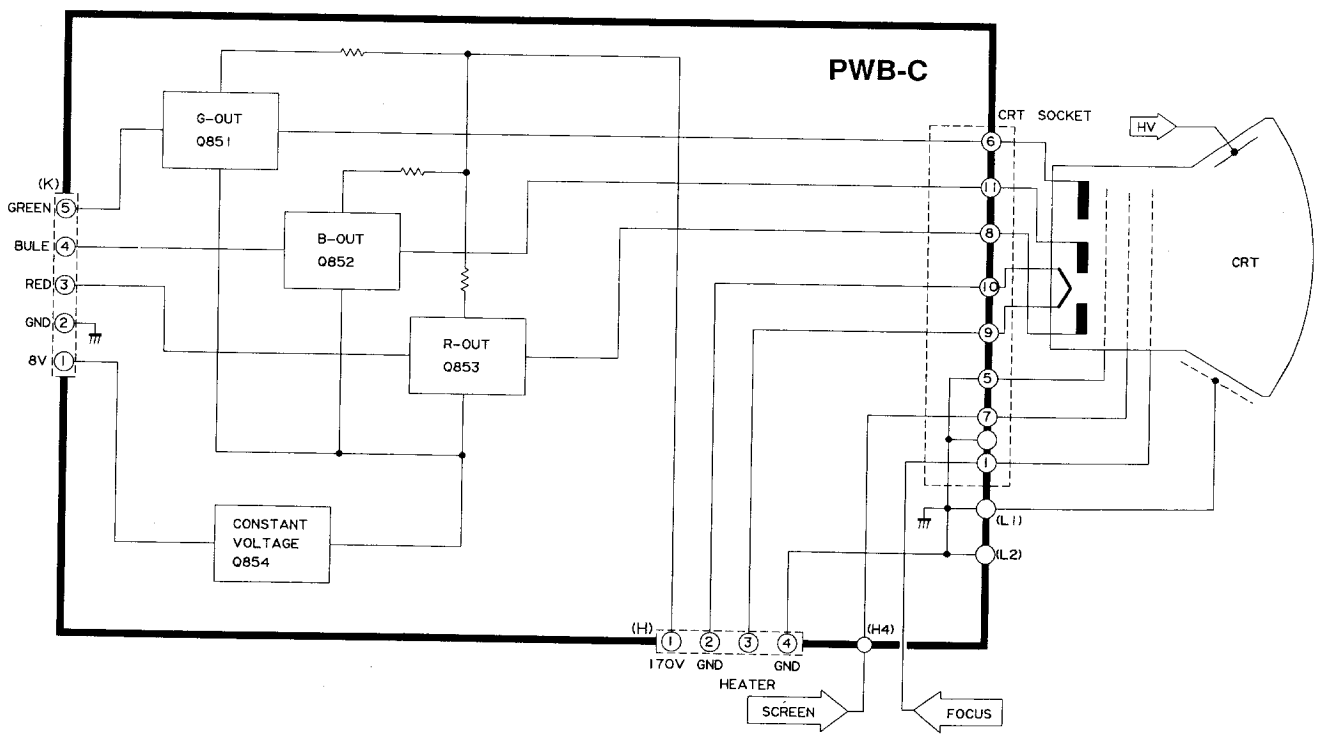
☐ CRT Socket Unit (14D-CMⒶ)

☐CRT管座电路装置(型号14D-CMⒶ)

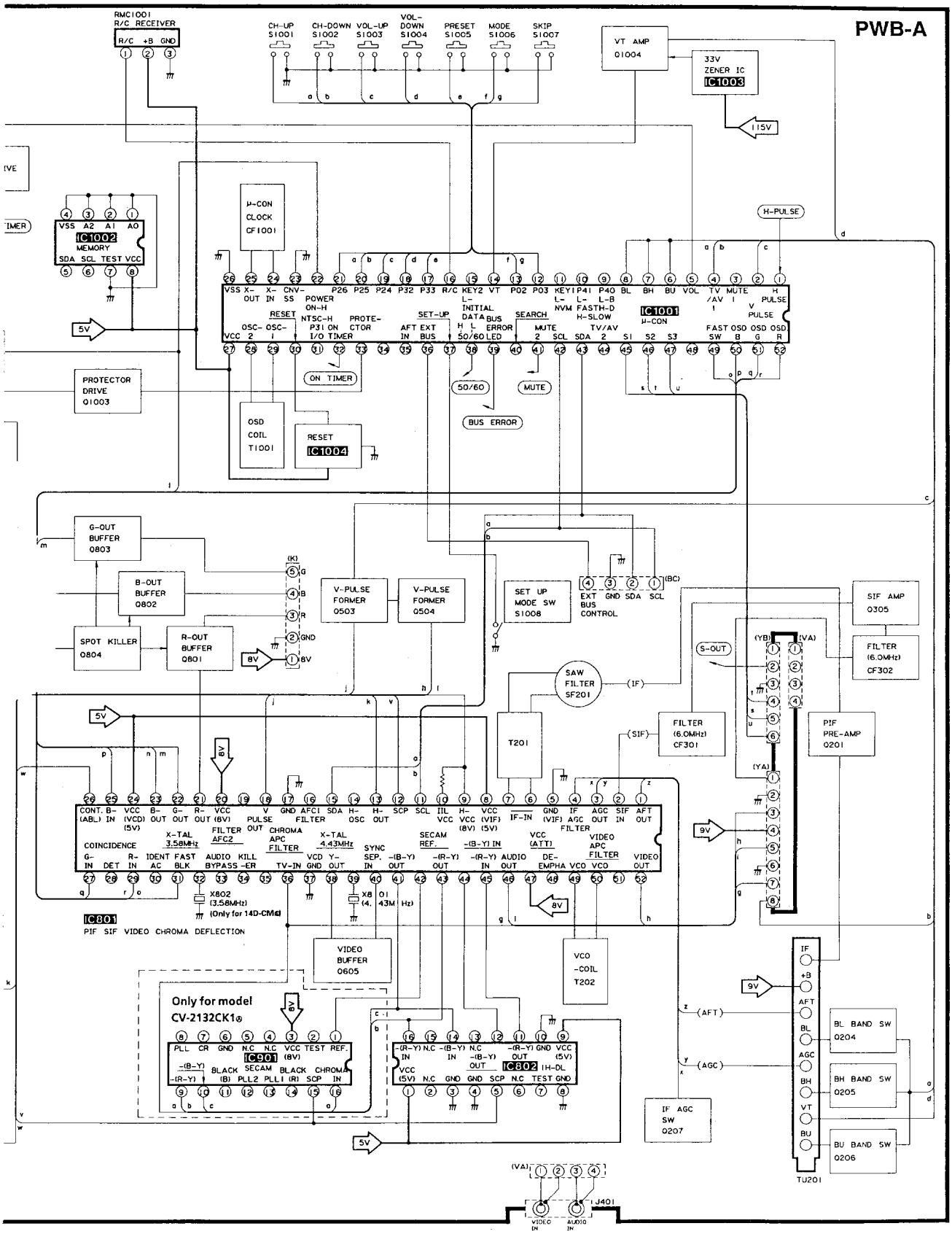


☐ CRT Socket Unit (21D-CK1Ⓐ and CV-2132CK1Ⓐ)

☐CRT管座电路装置(型号21D-CK1Ⓐ与CV-2132CK1Ⓐ)

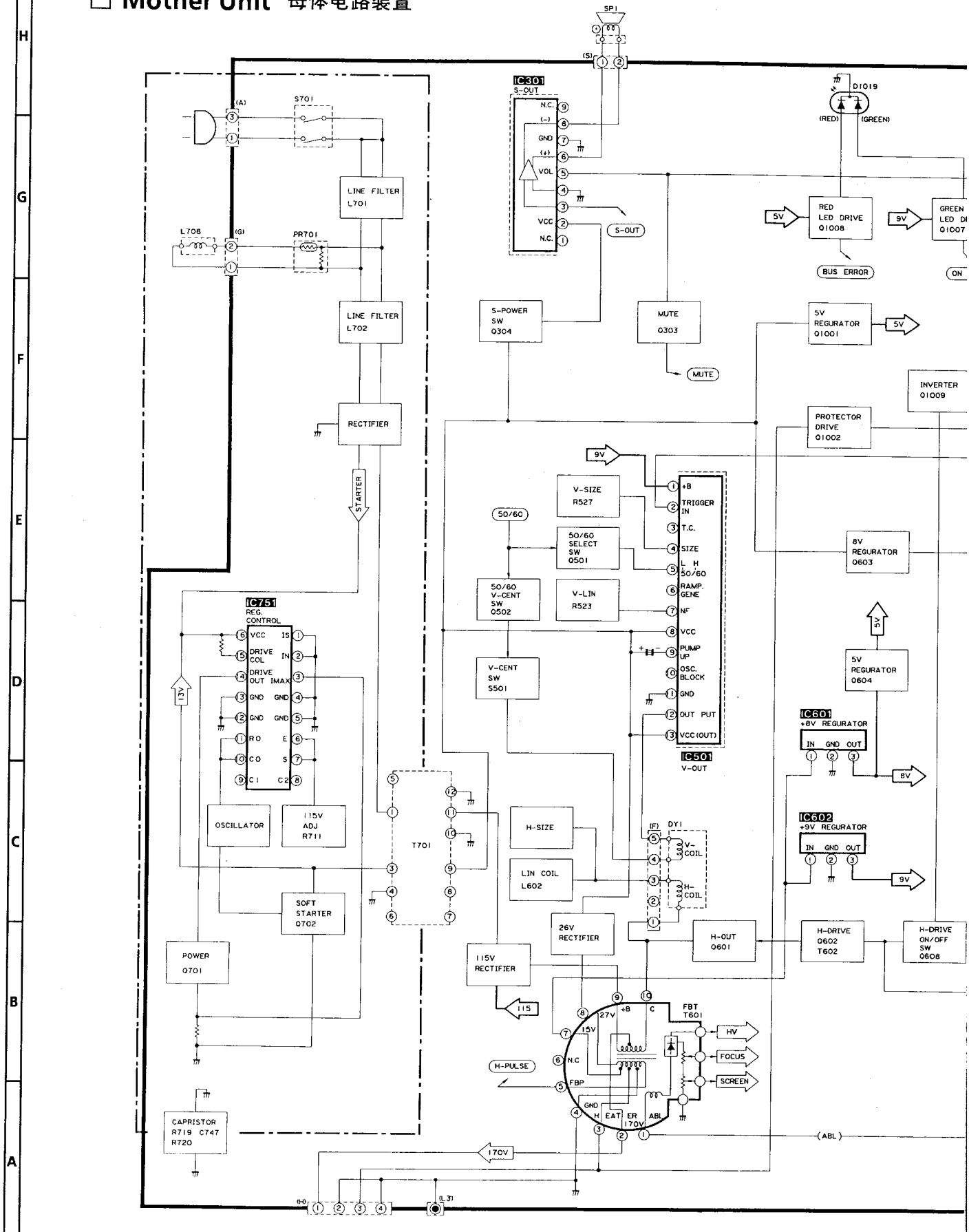


3 14D-CMⒶ与CV-2132CK1Ⓐ 电路方框图



MODEL 14D-CMⒶ and CV-2132CK1Ⓐ BLOCK DIAGRAM 型

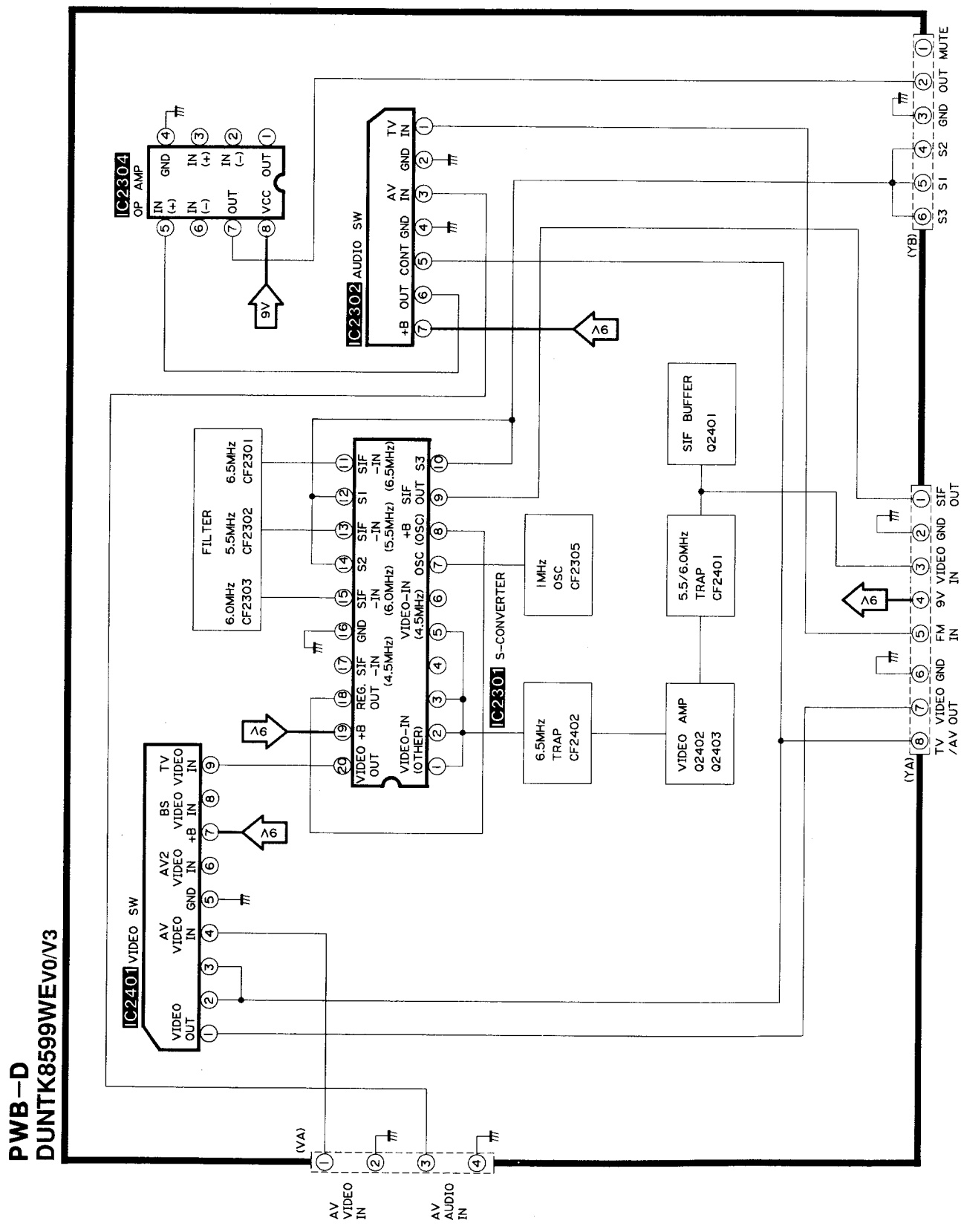
☐ Mother Unit 母体电路装置



BLOCK DIAGRAM 电路方框图

☐ AV Unit (14D-CMⒶ, 21D-CK1Ⓐ and CV-2132CK1Ⓐ)

☐声象电路装置(型号14D-CMⒶ、21D-CK1Ⓐ与CV-2132CK1Ⓐ)



7	8	9	10	11	12

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

更换零件表

更换零件

本维修说明书对具有特别安全要求的零件均用标记加以识别.
在此更换零件表中，具有特别安全要求的电路元件均用⚠标记以便注意识别。更换零件时，为了用户的安全以及电视机原有的工作性能，务请使用夏普规定零件。否则，可能有导致触电、火灾或其他不测事故发生的可能。

更换零件的订货方法

为了能迅速而确实地接受订货、以及正确无误地按时交货，在订货时请将下列各项明确告知。

1. 型号
2. 参考编号
3. 零件编号
4. 零件名称
5. 代号
6. 数量

MARK ★: SPARE PARTS-DELIVERY SECTION.

附★记号为备用部件的交货部门

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

14D-CMⒶ

⚠ VB1	VB370BVBK1U-S	R	CRT, 37cm (14")	BX
⚠ DY1	RCiLH0057PEZZ	R	Deflection Yoke	BB
⚠ L708	RCiLG0023PEZZ	R	Degaussing Coil	AN
	PMAGF3006CEZZ	J	Purity Magnet	AK
	PSPAG0004PEZZ	R	Wedge, (3 pcs used)	AB
	MSPRT0001PEFJ	R	Spring, CRT	AC

21D-CK1Ⓐ and CV-2132CK1Ⓐ

⚠ V1	VB51JFC61X/*S	R	CRT, 51cm (21")	CK
⚠ DY1	RCiLH1576CEZZ	J	Deflection Yoke	BD
⚠ L708	RCiLG0025PEZZ	R	Degaussing Coil	AW
	PMAGF3003CEZZ	J	Purity Magnet	AK
	PSPAG0003PEZZ	R	Wedge, (3 pcs used)	AD
	MSPRT0001PEFJ	R	Spring, CRT	AC

—— End of PICTURE TUBE ——

PRINTED WIRING BOARD ASSEMBLIES
(*NOT REPLACEMENT ITEM*)

14D-CMⒶ

PWB-A	DUNTK8600WEV3	–	Mother Unit	—
PWB-C	DUNTK8598WEV0	–	CRT Socket Unit	—
PWB-D	DUNTK8599WEV3	–	AV Unit	—

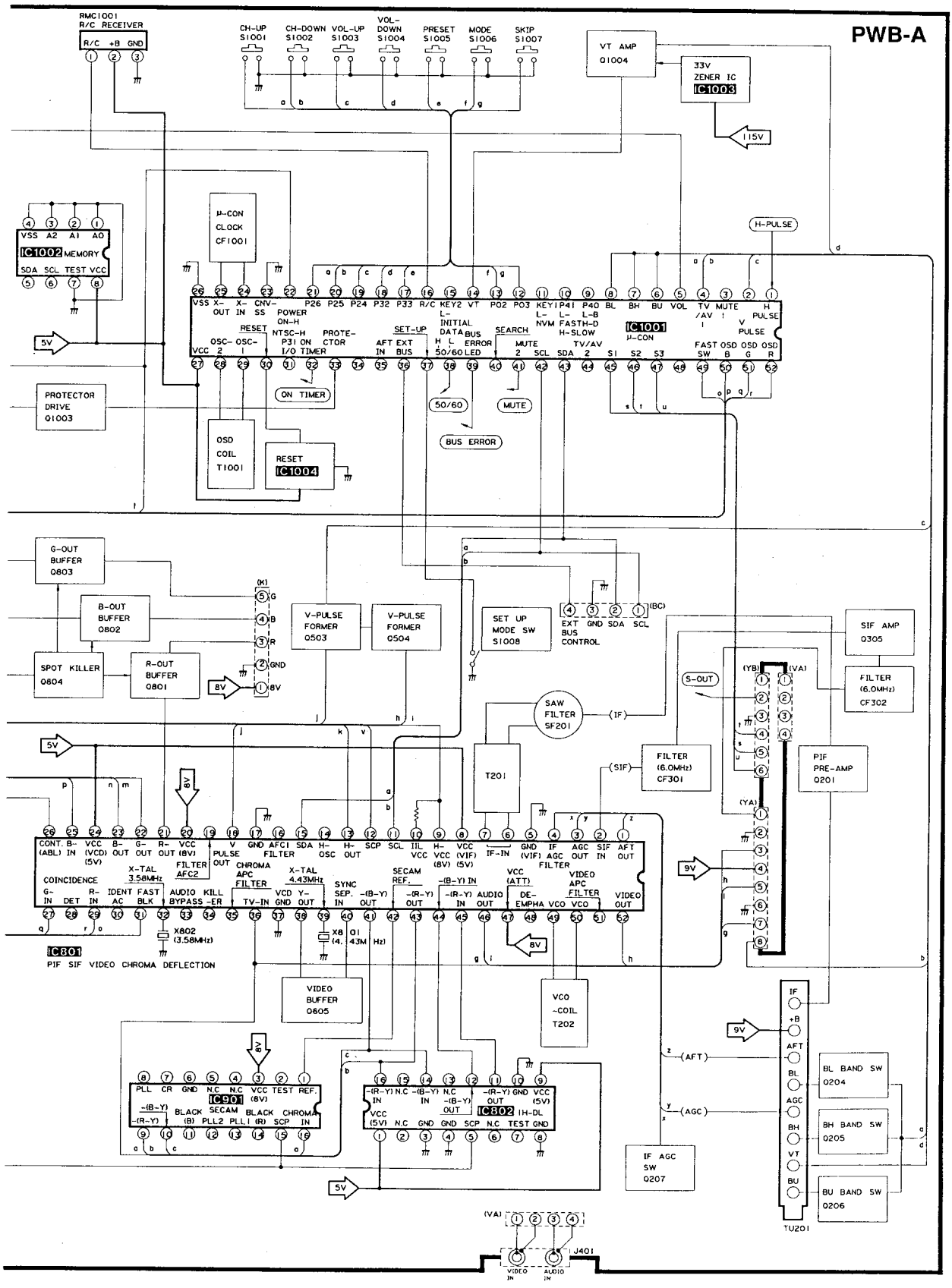
21D-CK1Ⓐ

PWB-A	DUNTK8600WEV0	–	Mother Unit	—
PWB-C	DUNTK8446WEV1	–	CRT Socket Unit	—
PWB-D	DUNTK8599WEV0	–	AV Unit	—

CV-2132CK1Ⓐ

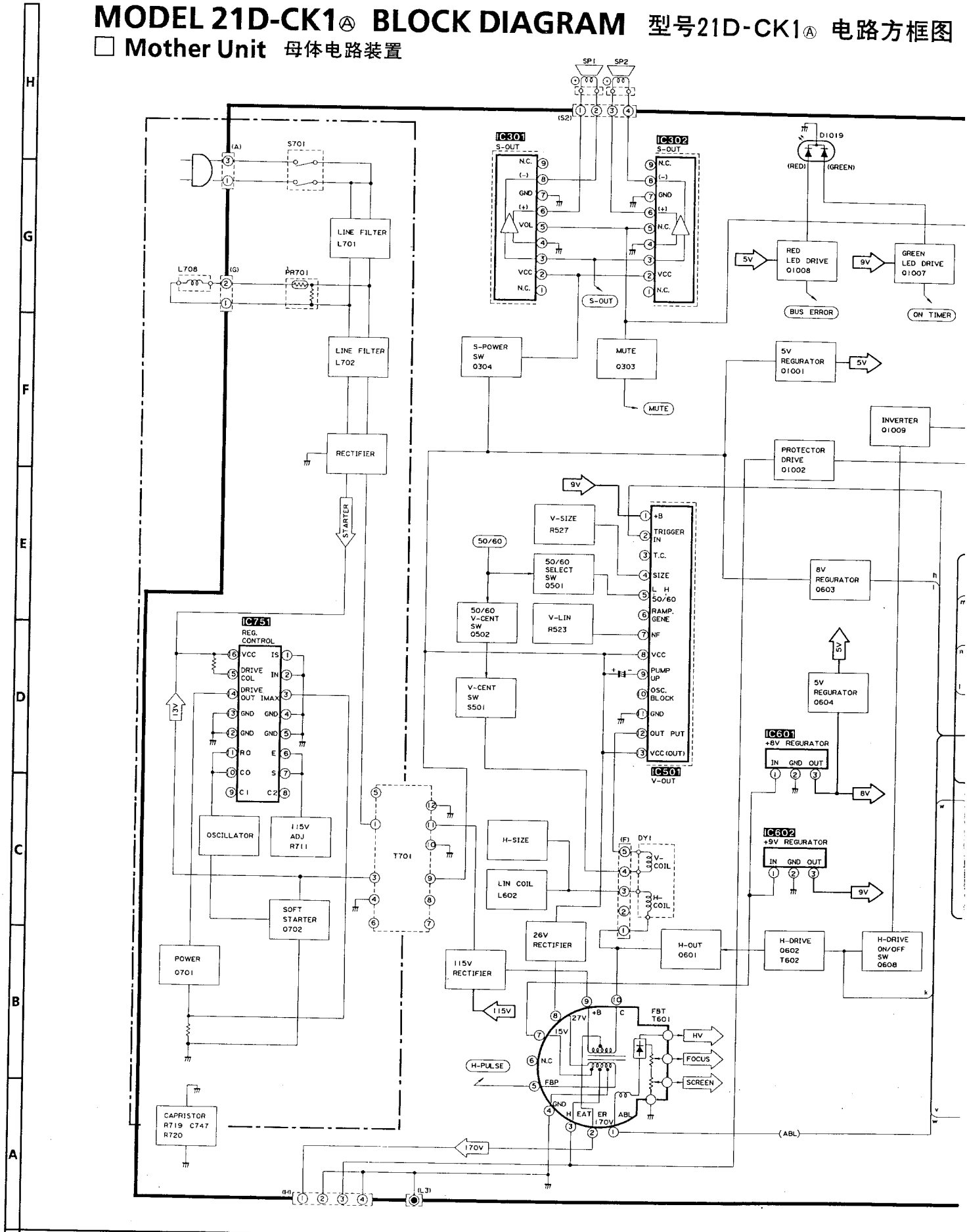
PWB-A	DUNTK8600WEV1	–	Mother Unit	—
PWB-C	DUNTK8446WEV1	–	CRT Socket Unit	—
PWB-D	DUNTK8599WEV0	–	AV Unit	—

—— End of P.W.B. ASSEMBLIES ——


PWB-A
RMC1001
R/C RECEIVER
R/C +B GND
CH-UP S1001
CH-DOWN S1002
VOL-UP S1003
VOL-DOWN S1004
PRESET S1005
MODE S1006
SKIP S1007
VT AMP Q1004
33V ZENER IC IC1003
115V
μ-CON CLOCK CF1001
IC1002 MEMORY
SDA SCL TEST VCC
VSS A2 A1 A0
H-PULSE
IC1001 μ-CON
RESET
ON TIMER
50/60
MUTE
BUS ERROR
PROTECTOR DRIVE Q1003
OSD COIL T1001
RESET IC1004
G-OUT BUFFER 0803
B-OUT BUFFER 0802
R-OUT BUFFER 0801
SPOT KILLER 0804
V-PULSE FORMER 0503
V-PULSE FORMER 0504
SET UP MODE SW S1008
EXT BUS CONTROL
SIF AMP 0305
FILTER (6.0MHz) CF302
S-OUT
SAW FILTER SF201
T201
FILTER (6.0MHz) CF301
PIF PRE-AMP 0201
IC801
PIF SIF VIDEO CHROMA DEFLECTION
X802 (3.58MHz)
X803 (4.43361875MHz)
VIDEO BUFFER 0605
VCO COIL T202
IC901
IC802
IF AGC SW 0207
TU201
BL BAND SW 0204
BH BAND SW 0205
BU BAND SW 0206
J401
VIDEO IN
AUDIO IN

MODEL 21D-CK1Ⓐ BLOCK DIAGRAM 型号21D-CK1Ⓐ 电路方框图

☐ Mother Unit 母体电路装置



PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT

TUNER

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

Ref. No.	Part No.	★	Description	Code
⚠ TU201	VTUVTSS6S1///	J	Tuner, VHF/UHF (14D-CM Ⓐ, CV-2132CK1Ⓐ)	BB
⚠ TU201	VTUVTSH6HD02/	J	Tuner, VHF/UHF (21D-CK1Ⓐ)	BF

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC301	VHiTDA7056A-1	R	Audio Output	AP
IC302	VHiTDA7056A-1	R	Audio Output (21D-CK1Ⓐ)	AP
IC501	VHiLA7837//-1	J	Vertical Output	AH
IC601	VHiTA7808S/-1	J	+8V Regulator	AD
IC602	VHiTA7809S/-1	J	+9V Regulator	AE
⚠ IC751	RH-iX1779CEZZ	J	Power Regulator	AR
IC801	VHiM52343SP-1	J	Video/Chroma	BD
IC802	VHiTDA4661/-1	J	1H-DL	AS
IC901	VHiM52325P/-1	J	SECAM (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AV
IC1001	RH-iX2551CEZZ	R	Microprocessor	AY
IC1002	RH-iX2448CEN1	J	Memory	AN
IC1003	RH-iX0037CEZZ	J	Zener IC	AF
IC1004	VHiPST529C2-1	J	Reset Switch	AD

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q201	VS2SC1906//1E	J	2SC1906	AC
Q204	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q205	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q206	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q207	VS2SC945AP/-1	J	2SC945A(P)	AB
Q303	VS2SC945AP/-1	J	2SC945A(P)	AB
Q304	VS2SC2236Y/-1	J	2SC2236(Y) (14D-CM Ⓐ)	AD
Q304	VS2SD880-G/-1	J	2SD880 (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AF
Q305	VS2SC945AP/-1	J	2SC945A(P)	AB
Q501	VS2SC945AP/-1	J	2SC945A(P)	AB
Q502	VS2SC1815GW-1	J	2SC1815(GW)	AB
Q503	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q504	VS2SA1015Y/1E	J	2SA1015(Y)	AC
⚠ Q601	VS2SD1877//1E	J	2SD1877 (14D-CM Ⓐ)	AL
⚠ Q601	VS2SD2095//1E	J	2SD2095 (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AN
Q602	VS2SC2271E/-1	J	2SC2271	AD
Q603	VS2SD880-G/-1	J	2SD880	AF
Q604	VS2SD880-G/-1	J	2SD880	AF

TRANSISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
Q605	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q608	VS2SC945AP/-1	J	2SC945A(P)	AB
⚠ Q701	VS2SD1883//-1	J	2SD1883 (14D-CM Ⓐ, CV-2132CK1Ⓐ)	AL
⚠ Q701	VS2SD1884//-1	J	2SD1884 (21D-CK1Ⓐ)	AN
⚠ Q702	VS2SC945AP/-1	J	2SC945A(P)	AB
Q801	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q802	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q803	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q804	VS2SC945AP/-1	J	2SC945A(P)	AB
Q1001	VS2SC1815GW-1	J	2SC1815(GW)	AB
Q1002	VS2SC945AP/-1	J	2SC945A(P)	AB
Q1003	VS2SA1015Y/1E	J	2SA1015(Y)	AC
Q1004	VS2SC383-WT-1	J	2SC383(WT)	AE
Q1007	VS2SC945AP/-1	J	2SC945A(P)	AB
Q1008	VS2SC945AP/-1	J	2SC945A(P)	AB
Q1009	VS2SC3399//-1	J	2SC3399	AB

DIODES

Ref. No.	Part No.	★	Description	Code
D301	VHD1SS119//1E	J	1SS119 (21D-CK1Ⓐ)	AA
D302	RH-DX0224CEZZ	J	(14D-CM Ⓐ)	AB
D302	RH-DX0247CEZZ	J	(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AE
D303	VHD1SS119//1E	J	1SS119	AA
D501	RH-DX0127CEZZ	J	1S5295G	AC
D502	RH-DX0279CEZZ	J	1N4005	AB
D503	VHD1SS119//1E	J	1SS119	AA
D602	RH-EX0310CEZZ	J	Zener Diode, 8.2V	AA
D603	VHD1SS119//1E	J	1SS119	AA
D604	VHD1SS119//1E	J	1SS119	AA
D605	VHD1SS119//1E	J	1SS119	AA
D607	VHD1SS119//1E	J	1SS119	AA
D608	VHD1SS119//1E	J	1SS119	AA
D609	RH-EX0293CEZZ	J	Zener Diode	AA
D610	RH-EX0306CEZZ	J	Zener Diode (14D-CM Ⓐ)	AB
D610	RH-EX0308CEZZ	J	Zener Diode (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
D611	VHD1SS119//1E	J	1SS119	AA
D612	VHD1SS119//1E	J	1SS119	AA
D613	VHD1SS119//1E	J	1SS119	AA
D614	RH-DX0073CEZZ	J	RH1Z	AD
D615	VHD1SS119//1E	J	1SS119	AA
D616	RH-DX0302CEZZ	J		AC
D617	RH-DX0279CEZZ	J	1N4005	AB
D618	VHD1SS119//1E	J	1SS119	AA
D619	VHD1SS119//1E	J	1SS119 (14D-CM Ⓐ)	AA
D624	VHD1SS119//1E	J	1SS119	AA
D626	VHD1SS119//1E	J	1SS119	AA

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

DIODES (Continued)

Ref. No.	Part No.	★	Description	Code
D627	VHD1SS119//1E	J	1SS119	AA
D628	VHD1SS119//1E	J	1SS119	AA
D701	RH-DX0279CEZZ	J	Rectifier (14D-CMⒶ)	AB
⚠ D701	RH-DX0055TAZZ	J	Rectifier (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AD
⚠ D702	RH-DX0279CEZZ	J	Rectifier (14D-CMⒶ)	AB
⚠ D702	RH-DX0055TAZZ	J	Rectifier (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AD
⚠ D703	RH-DX0279CEZZ	J	Rectifier (14D-CMⒶ)	AB
⚠ D703	RH-DX0055TAZZ	J	Rectifier (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AD
⚠ D704	RH-DX0279CEZZ	J	Rectifier (14D-CMⒶ)	AB
⚠ D704	RH-DX0055TAZZ	J	Rectifier (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AD
⚠ D705	RH-DX0130CEZZ	J	EU-1Z	AE
⚠ D706	RH-DX0130CEZZ	J	EU-1Z	AE
⚠ D707	RH-DX0164CEZZ	J		AC
⚠ D708	RH-EX0092CEZZ	J	Zener Diode, 3.9V (14D-CMⒶ)	AB
⚠ D708	RH-EX0639CEZZ	J	Zener Diode, 3.9V (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
⚠ D709	RH-DX0302CEZZ	J		AC
D732	RH-DX0226CEZZ	J	(14D-CMⒶ)	AC
D732	RH-DX0388CEZZ	J	(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AE
D801	VHD1SS119//1E	J	1SS119	AA
D802	VHD1SS119//1E	J	1SS119	AA
D803	VHD1SS119//1E	J	1SS119	AA
D804	VHD1SS119//1E	J	1SS119	AA
D805	VHD1SS119//1E	J	1SS119	AA
D1001	RH-EX0294CEZZ	J	Zener Diode	AA
D1002	VHD1SS119//1E	J	1SS119	AA
D1003	RH-EX0322CEZZ	J	Zener Diode	AA
D1004	VHD1SS119//1E	J	1SS119	AA
D1005	RH-EX0301CEZZ	J	Zener Diode	AA
D1006	RH-EX0301CEZZ	J	Zener Diode	AA
D1007	RH-EX0325CEZZ	J	Zener Diode	AA
D1008	RH-EX0325CEZZ	J	Zener Diode	AA
D1009	RH-EX0325CEZZ	J	Zener Diode	AA
D1010	RH-EX0325CEZZ	J	Zener Diode	AA
D1011	RH-EX0325CEZZ	J	Zener Diode	AA
D1012	RH-EX0301CEZZ	J	Zener Diode	AA
D1013	RH-EX0325CEZZ	J	Zener Diode	AA
D1014	RH-EX0325CEZZ	J	Zener Diode	AA
D1015	VHD1SS119//1E	J	1SS119	AA
D1016	RH-EX0325CEZZ	J	Zener Diode	AA
D1017	RH-EX0325CEZZ	J	Zener Diode	AA
D1018	RH-EX0325CEZZ	J	Zener Diode	AA
D1019	RH-PX0290CEZZ	J	LED, Red/Green	AC
D1020	RH-EX0295CEZZ	J	Zener Diode	AA
D1021	RH-EX0295CEZZ	J	Zener Diode	AA
D1022	RH-EX0295CEZZ	J	Zener Diode	AA
D1023	RH-EX0295CEZZ	J	Zener Diode	AA
D1024	RH-EX0295CEZZ	J	Zener Diode	AA
D1025	VHD1SS119//1E	J	1SS119	AA
D1045	RH-EX0325CEZZ	J	Zener Diode	AA
D1047	VHD1SS119//1E	J	1SS119	AA
D1048	RH-EX0325CEZZ	J	Zener Diode	AA
D1049	RH-EX0325CEZZ	J	Zener Diode	AA
⚠ VA702	RH-VX0033CEZZ	J	Varistor	AD

PACKAGED CIRCUITS

⚠ PR701	RMPTP0028CEZZ	J	Positive Coefficient Thermistor (14D-CMⒶ)	AG
⚠ PR701	RMPTP0061CEZZ	J	Positive Coefficient Thermistor (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AV
X801	RCRSB0008PEZZ	R	Crystal, 4.43 MHz	AH
X802	RCRSB0009PEZZ	R	Crystal, 3.58 MHz (14D-CMⒶ, 21D-CK1Ⓐ)	AL

COILS AND TRANSFORMERS

CF301	RFiLC0084CEZZ	J	Ceramic Filter, 6.0 MHz	AF
CF302	RFiLC0268CEZZ	J	Ceramic Filter, 6.0 MHz	AD
CF601	RFiLA0078CEZZ	J	Ceramic Filter, 500 kHz	AF
CF1001	RFiLC0091GEZZ	J	Ceramic Filter, 4 MHz Osc.	AD
L201	VP-XF1R8K0000	J	Coil, 1.8μH	AB
L204	VP-DF120K0000	J	Coil, 12μH	AB
L205	VP-XF2R2K0000	J	Coil, 2.2μH	AB
L206	VP-XF1R2K0000	J	Coil, 1.2μH	AB
L209	VP-CF680K0000	J	Coil, 68μH	AB
L301	VP-DF101K0000	J	Coil, 100μH	AB
L304	VP-CF3R3K0000	J	Coil, 3.3μH	AB
L306	VP-DF150K0000	J	Coil, 15μH	AB
L601	VP-CF1R5M0000	J	Coil, 1.5μH (14D-CMⒶ)	AB
L601	VP-CF1R0M0000	J	Coil, 1μH (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
L602	RCiLZ0004PEZZ	R	Linearity Coil (14D-CMⒶ)	AN
L602	RCiLZ0007PEZZ	R	Linearity Coil (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AK
L603	RCiLP0088CEZZ	J	3.3mH	AG
L604	VP-CF3R3K0000	J	Coil, 3.3μH	AB
L605	VP-CF100K0000	J	Coil, 10μH	AB
L632	RCiLP0050CEZZ	J	Peaking Coil	AE
⚠ L701	RCiLF0076CEZZ	J	Line Filter (14D-CMⒶ)	AK
⚠ L701	RCiLF0007PEZZ	R	Line Filter (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AL

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

COILS AND TRANSFORMERS (Continued)

Ref. No.	Part No.	★	Description	Code
⚠ L702	RCiLF0105CEZZ	J	Line Filter	AP
⚠ L705	VP-CF3R3K0000	J	Coil, 3.3μH	AB
⚠ L712	VP-CF330K0000	J	Coil, 33μH (14D-CMⒶ, CV-2132CK1Ⓐ)	AB
⚠ L712	VP-CF100K0000	J	Coil, 10μH (21D-CK1Ⓐ)	AB
L801	VP-DF470K0000	J	Coil, 47μH (14D-CMⒶ)	AB
L801	VP-DF101K0000	J	Coil, 100μH (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
L802	VP-DF470K0000	J	Coil, 47μH (14D-CMⒶ)	AB
L802	VP-DF101K0000	J	Coil, 100μH (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
L901	VP-XF8R2K0000	J	Coil, 8.2μH (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
L1001	VP-XF120K0000	J	Coil, 12μH	AB
L1002	VP-XF120K0000	J	Coil, 12μH	AB
L1004	VP-DF120K0000	J	Coil, 12μH	AB
SF201	RFiLC0308CEZZ	J	Surface Acoustic Wave Filter	AM
T201	RCiLi0550CEZZ	J	IF Coil	AD
T202	RCiLD0229CEZZ	J	PIF Detector	AE
⚠ T601	RTRNF0063PEZZ	R	F.B.T. (Flyback Trans.) (14D-CMⒶ)	BE
⚠ T601	RTRNF0069PEZZ	R	F.B.T. (Flyback Trans.) (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	BF
⚠ T602	RTRNZ0179CEZZ	R	Horizontal Drive Trans. (14D-CMⒶ)	AE
⚠ T602	RTRNZ0026PEZZ	R	Horizontal Drive Trans. (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AH
⚠ T701	RTRNZ0050PEZZ	R	Power Regulator Trans. (14D-CMⒶ)	AU
⚠ T701	RTRNZ0037PEZZ	R	Power Regulator Trans. (21D-CK1Ⓐ)	AY
⚠ T701	RTRNZ0035PEZZ	R	Power Regulator Trans. (CV-2132CK1Ⓐ)	AW
T1001	RCiLB0008PEZZ	R	On Screen Display	AG

CONTROLS

R523	RVR-M4622GEZZ	J	2.2k(B)	Vert. Linearity	AB
R527	RVR-M4631GEZZ	J	68k(B)	Vert. Size	AB
⚠ R711	RVR-M4324CEZZ	J	220(B)	115V Adj.	AC

CAPACITORS

C201	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C202	VCEAGA1HW105M	J	1	50V	Electrolytic	AC

CAPACITORS (Continued)

C203	VCQYTA1HM104K	J	0.1	50V	Mylar	AC
C204	VCEAGA1HW105M	J	1	50V	Electrolytic	AC
C205	VCEAGA1HW225M	J	2.2	50V	Electrolytic	AB
C206	VCEAGA1HW105M	J	1	50V	Electrolytic	AC
C207	VCFYFA1HA104J	J	0.1	50V	M. Polyester	AA
C208	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C209	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C210	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C211	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C212	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C213	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C216	VCEAGA0JW108M	J	1000	6.3V	Electrolytic	AC
C217	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C218	VCEAGA1HW224M	J	0.22	50V	Electrolytic	AA
C219	VCEAGA1HW474M	J	0.47	50V	Electrolytic	AA
C220	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C222	VCFYFA1HA104J	J	0.1	50V	M. Polyester	AA
C225	VCCCPA1HH1R0C	J	1p	50V	Ceramic	AA
C301	VCQYTU1HM223J	R	0.022	50V	Mylar	AC
C302	VCQYTA1HM103K	J	0.01	50V	Mylar	AB
C303	VCQYTU1HM223J	R	0.022 (21D-CK1Ⓐ)	50V	Mylar	AC
C304	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C305	VCEAGA1HW104M	J	0.1	50V	Electrolytic	AA
C306	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C307	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C308	VCEAGA1CW337M	J	330	16V	Electrolytic	AC
C309	VCFYHA1HA474J	J	0.47	50V	M. Polyester	AC
C310	VCFYHA1HA474J	J	0.47 (21D-CK1Ⓐ)	50V	M. Polyester	AC
C311	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
C312	VCEAGA1EW477M	J	470 (14D-CMⒶ)	25V	Electrolytic	AD
C312	VCEAGA1EW108M	J	1000 (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	25V	Electrolytic	AD
C313	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C319	VCKYD41HB102K	J	1000p	50V	Ceramic	AA
C322	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C327	VCQYTA1HM103K	J	0.01	50V	Mylar	AB
C328	VCEAGA1EW477M	J	470	25V	Electrolytic	AD
C329	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C330	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C331	VCCCPA1HH470J	J	47p	50V	Ceramic	AA
C333	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C334	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C401	VCFYFA1HA224J	J	0.22	50V	M. Polyester	AB
C402	VCEAGA1HW225M	J	2.2	50V	Electrolytic	AB
C501	VCEAGA1VW477M	J	470	35V	Electrolytic	AD
C502	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
C503	VCEAGA1VW107M	J	100	35V	Electrolytic	AC
C504	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C505	VCEAGA1EW108M	J	1000	25V	Electrolytic	AD
C506	VCEACA1HC225M	J	2.2	50V	Electrolytic	AC
C507	VCQYTA1HM104K	J	0.1	50V	Mylar	AC

Ref. No.	Part No.	★	Description	Code

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

CAPACITORS (Continued)

C508	VCQYTA1HM104K	J	0.1	50V	Mylar	AC
C509	VCCSPA1HL100J	J	10p	50V	Ceramic	AA
C510	VCEAGA1HW107M	J	100	50V	Electrolytic	AC
C511	VCEACA1HC105M	J	1	50V	Electrolytic	AC
C512	VCQYTA1HM103K	J	0.01	50V	Mylar	AB
C513	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C514	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C515	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C516	VCKYPA2HB561K	J	560p	500V	Ceramic	AA
C601	VCEAGA1CW227M	J	220	16V	Electrolytic	AC
C602	VCKYMN1CY103N	J	0.01	16V	Ceramic	AA
C603	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C604	VCE9GA1HW105M	J	1	50V	Elect. (N.P)	AB
C605	VCQYTA1HM103K	J	0.01	50V	Mylar	AB
C606	VCQYTA1HM223K	J	0.022	50V	Mylar	AB
C607	VCQYTA1HM683K	J	0.068	50V	Mylar	AB
C608	VCKYPA1HB182K	J	1800p	50V	Ceramic	AA
C609	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
C610	VCFYSB2EB823J	J	0.082	250V	M. Polyester	AD
⚠ C611	VCFPPD3CA682H	J	6800p	1.6kV	Polypro Film	AE
			(14D-CMⒶ)			
⚠ C611	VCFPPD3CA103J	J	0.01	1.6kV	Polypro Film	AF
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)			
C612	RC-KZ0038CEZZ	J	470p	2kV	Ceramic	AB
			(14D-CMⒶ)			
C612	RC-KZ0040CEZZ	J	820p	2kV	Ceramic	AD
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)			
C613	VCQPSD2DA224J	J	0.22	200V	Mylar	AD
C614	VCKYPA2HB221K	J	220p	500V	Ceramic	AA
C615	VCFPPD2DB434J	J	0.43	200V	Polypro Film	AE
			(14D-CMⒶ)			
C615	VCFPPD2DB564J	J	0.56	200V	Polypro Film	AF
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)			
C616	VCQPSC2DA104J	J	0.1	200V	Mylar	AC
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)			
C617	VCEAGA2AW106M	J	10	100V	Electrolytic	AC
C618	VCQYTA1HM104K	J	0.1	50V	Mylar	AC
C619	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
C620	VCEAGA1EW477M	J	470	25V	Electrolytic	AD
C621	VCEAGA1HW106M	J	10	50V	Electrolytic	AC
C622	VCEAGA1CW227M	J	220	16V	Electrolytic	AC
C623	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C624	VCEAGA1CW227M	J	220	16V	Electrolytic	AC
C625	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C626	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C627	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C628	VCEAGA1AW477M	J	470	10V	Electrolytic	AC
C629	VCCCPA1HH220J	J	22p	50V	Ceramic	AA
C631	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C634	VCFYFA1HA224J	J	0.22	50V	M. Polyester	AB
C637	VCEAGA1CW476M	J	47	16V	Electrolytic	AB

CAPACITORS (Continued)

C638	VCFYFA1HA224J	J	0.22	50V	M. Polyester	AB
C640	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C641	VCEAGA1AW227M	J	220	10V	Electrolytic	AB
⚠ C701	RC-FZ0091CEZZ	J	0.22	AC250V	Special	AE
			(14D-CMⒶ, 21D-CK1Ⓐ)			
⚠ C701	RC-FZ0066CEZZ	J	0.1	AC250V	Special	AE
			(CV-2132CK1Ⓐ)			
⚠ C703	RC-KZ0029CEZZ	J	0.01	AC250V	Ceramic	AC
⚠ C704	RC-KZ0029CEZZ	J	0.01	AC250V	Ceramic	AC
⚠ C705	RC-KZ0029CEZZ	J	0.01	AC250V	Ceramic	AC
⚠ C706	RC-KZ0029CEZZ	J	0.01	AC250V	Ceramic	AC
⚠ C707	RC-EZ0055CEZZ	J	150	400V	Electrolytic	AN
⚠ C708	RC-KZ0029CEZZ	J	0.01	AC250V	Ceramic	AC
⚠ C709	VCEAGA1EW107M	J	100	25V	Electrolytic	AD
			(14D-CMⒶ)			
⚠ C709	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
			(21D-CK1Ⓐ)			
⚠ C709	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
			(CV-2132CK1Ⓐ)			
⚠ C710	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
⚠ C711	RC-QZA821TAYJ	J	820p		Mylar	AB
			(14D-CMⒶ)			
⚠ C711	RC-QZA471TAYJ	J	470p		Mylar	AB
			(21D-CK1Ⓐ)			
⚠ C711	VCQYTA1HM152J	J	1500p	50V	Mylar	AA
			(CV-2132CK1Ⓐ)			
⚠ C712	VCFYFA1HA474J	J	0.47	50V	M. Polyester	AC
			(14D-CMⒶ, CV-2132CK1Ⓐ)			
⚠ C712	VCFYFA1HA684J	J	0.68	50V	M. Polyester	AD
			(21D-CK1Ⓐ)			
⚠ C713	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
⚠ C714	VCQYTA1HM123K	J	0.012	50V	Mylar	AA
			(14D-CMⒶ, CV-2132CK1Ⓐ)			
⚠ C714	VCQYTA1HM563K	J	0.056	50V	Mylar	AB
			(21D-CK1Ⓐ)			
⚠ C715	VCEAGA1HW105M	J	1	50V	Electrolytic	AC
⚠ C716	VCEAGA1HW105M	J	1	50V	Electrolytic	AC
			(14D-CMⒶ, 21D-CK1Ⓐ)			
⚠ C716	VCEAGA1HW225M	J	2.2	50V	Electrolytic	AB
			(CV-2132CK1Ⓐ)			
⚠ C717	VCQPSC2JA333K	J	0.033	630V	Mylar	AB
⚠ C718	VCKYPH3DB561K	J	560p	2kV	Ceramic	AC
⚠ C719	VCQYTA1HM273K	J	0.027	50V	Mylar	AB
⚠ C720	VCEAGA1JW476M	J	47	63V	Electrolytic	AB
⚠ C721	RC-KZ0024CEZZ	J	1000p	2kV	Ceramic	AC
⚠ C723	VCKYPA2HB102K	J	1000p	500V	Ceramic	AA
⚠ C724	RC-KZ0029CEZZ	J	0.01	AC250V	Ceramic	AC
⚠ C725	VCFYHA1HA474J	J	0.47	50V	M. Polyester	AC
⚠ C726	VCKYPA1HB331K	J	330p	50V	Ceramic	AA
⚠ C729	VCEAGA1CW227M	J	220	16V	Electrolytic	AC
			(14D-CMⒶ)			
⚠ C729	VCFYHA1HA474J	J	0.47	50V	M. Polyester	AC
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)			
C731	VCEAGW2CW227M	J	220	160V	Electrolytic	AK

Ref. No.	Part No.	★	Description	Code

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

CAPACITORS (Continued)

C732	RC-KZ0024CEZZ	J	1000p 2kV Ceramic	AC
			(14D-CMⒶ, 21D-CK1Ⓐ)	
C732	RC-KZ0057CEZZ	J	1500p 2kV Ceramic	AD
			(CV-2132CK1Ⓐ)	
⚠ C736	RC-KZ0029CEZZ	J	0.01 AC250V Ceramic	AC
C737	VCEAGH2CW107M	J	100 160V Electrolytic	AE
⚠ C741	VCKYPA2HB472K	J	4700p 500V Ceramic	AB
⚠ C742	VCFYFA1HA394J	J	0.39 50V M. Polyester	AC
			(14D-CMⒶ, 21D-CK1Ⓐ)	
⚠ C742	VCFYFA1HA104J	J	0.1 50V M. Polyester	AA
			(CV-2132CK1Ⓐ)	
⚠ C747	RC-KZ0265CEZZ	J	1500p 4kV Ceramic	AE
C801	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C802	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C803	VCEAGA1CW476M	J	47 16V Electrolytic	AB
C804	VCKYPA1HB102K	J	1000p 50V Ceramic	AA
C805	VCKYPA1HB102K	J	1000p 50V Ceramic	AA
C806	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
C807	VCCCPA1HH8R0D	J	8p 50V Ceramic	AA
C808	VCEAGA1HW105M	J	1 50V Electrolytic	AC
C809	VCQYTA1HM153K	J	0.015 50V Mylar	AA
C810	VCCCPA1HH180J	J	18p 50V Ceramic	AA
			(14D-CMⒶ, 21D-CK1Ⓐ)	
C811	VCEAGA1HW106M	J	10 50V Electrolytic	AC
C812	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C813	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C814	VCEAGA1CW107M	J	100 16V Electrolytic	AB
C815	VCKYPA1HF103Z	J	0.01 50V Ceramic	AA
C816	VCCSPA1HL470J	J	47p 50V Ceramic	AA
C817	VCCSPA1HL470J	J	47p 50V Ceramic	AA
C818	VCCSPA1HL470J	J	47p 50V Ceramic	AA
C819	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C820	VCEAGA1AW477M	J	470 10V Electrolytic	AC
C821	VCEAGA1CW106M	J	10 16V Electrolytic	AA
C822	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
C824	VCEAGA1CW476M	J	47 16V Electrolytic	AB
C825	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
C826	VCCCPA1HH6R0D	J	6p 50V Ceramic	AA
C901	VCEAGA1CW476M	J	47 16V Electrolytic	AB
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C902	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C903	VCFYHA1HA474J	J	0.47 50V M. Polyester	AC
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C904	VCFYHA1HA474J	J	0.47 50V M. Polyester	AC
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C906	VCCCPA1HH470J	J	47p 50V Ceramic	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C907	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C908	VCFYFA1HA104J	J	0.1 50V M. Polyester	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C909	VCCCPA1HH390J	J	39p 50V Ceramic	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
C1001	VCEAGA1EW477M	J	470 25V Electrolytic	AD
			(14D-CMⒶ, 21D-CK1Ⓐ)	
C1002	VCEAGA1CW106M	J	10 16V Electrolytic	AA
C1003	VCEAGA0JW107M	J	100 6.3V Electrolytic	AB
C1004	VCEAGA1HW105M	J	1 50V Electrolytic	AC
			(14D-CMⒶ, 21D-CK1Ⓐ)	
C1004	VCEAGA0JW107M	J	100 6.3V Electrolytic	AB
			(CV-2132CK1Ⓐ)	
C1005	VCEAGA0JW107M	J	100 6.3V Electrolytic	AB
C1006	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
C1007	VCEAGA0JW107M	J	100 6.3V Electrolytic	AB
C1008	VCKYD41CY103N	J	0.01 16V Ceramic	AA
C1009	VCKYD41CY103N	J	0.01 16V Ceramic	AA
C1010	VCEAGA1HW335M	J	3.3 50V Electrolytic	AB
C1011	VCEAGA1CW106M	J	10 16V Electrolytic	AA
C1012	VCCSPA1HL330J	J	33p 50V Ceramic	AA
C1013	VCCSPA1HL330J	J	33p 50V Ceramic	AA
C1014	VCCSPA1HL330J	J	33p 50V Ceramic	AA
C1015	VCCSPA1HL330J	J	33p 50V Ceramic	AA
C1016	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C1017	VCQYTA1HM104K	J	0.1 50V Mylar	AC
C1018	VCEAGA1HW106M	J	10 50V Electrolytic	AC
C1019	VCCCPA1HH101J	J	100p 50V Ceramic	AA
C1020	VCCCPA1HH101J	J	100p 50V Ceramic	AA
C1021	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
C1022	VCKYMN1CY103N	J	0.01 16V Ceramic	AA
C1023	VCEAGA0JW107M	J	100 6.3V Electrolytic	AB
C1024	VCEAGA0JW107M	J	100 6.3V Electrolytic	AB
C1025	VCEAGA1CW106M	J	10 16V Electrolytic	AA
C1026	VCCCPA1HH101J	J	100p 50V Ceramic	AA
C1029	VCFYFA1HA104J	J	0.1 50V M. Polyester	AA

RESISTORS

R201	VRD-RA2BE151J	J	150 1/8W Carbon	AA
			(14D-CMⒶ, 21D-CK1Ⓐ)	
R201	VRD-MN2BE151J	J	150 1/8W Carbon	AA
			(CV-2132CK1Ⓐ)	
R202	VRD-MN2BE392J	J	3.9k 1/8W Carbon	AA
R203	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R204	VRD-MN2BE471J	J	470 1/8W Carbon	AA
R205	VRD-RA2EE221J	J	220 1/4W Carbon	AA
R211	VRD-MN2BE220J	J	22 1/8W Carbon	AA
R212	VRD-MN2BE151J	J	150 1/8W Carbon	AA
R217	VRD-MN2BE473J	J	47k 1/8W Carbon	AA
R218	VRD-MN2BE473J	J	47k 1/8W Carbon	AA
R219	VRD-RA2BE100J	J	10 1/8W Carbon	AA
R220	VRD-MN2BE392J	J	3.9k 1/8W Carbon	AA
R222	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R223	VRD-MN2BE472J	J	4.7k 1/8W Carbon	AA

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R224	VRD-MN2BE472J	J	4.7k 1/8W Carbon	AA
R225	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R226	VRD-MN2BE472J	J	4.7k 1/8W Carbon	AA
R227	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R228	VRD-MN2BE333J	J	33k 1/8W Carbon	AA
R229	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R230	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R231	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R233	VRD-MN2BE224J	J	220k 1/8W Carbon	AA
R234	VRD-MN2BE224J	J	220k 1/8W Carbon	AA
R236	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R238	VRD-MN2BE223J	J	22k 1/8W Carbon	AA
R241	VRD-RA2BE472J	J	4.7k 1/8W Carbon	AA
R301	VRD-RA2BE100J	J	10 1/8W Carbon	AA
R302	VRD-RA2BE100J	J	10 1/8W Carbon (21D-CK1Ⓐ)	AA
R304	VRD-RA2BE102J	J	1k 1/8W Carbon	AA
R307	VRD-MN2BE333J	J	33k 1/8W Carbon	AA
R316	VRD-MN2BE333J	J	33k 1/8W Carbon (21D-CK1Ⓐ)	AA
R317	VRD-MN2BE333J	J	33k 1/8W Carbon (21D-CK1Ⓐ)	AA
R320	VRD-MN2BE332J	J	3.3k 1/8W Carbon	AA
R321	VRD-MN2BE333J	J	33k 1/8W Carbon	AA
R323	VRD-RA2BE102J	J	1k 1/8W Carbon	AA
R327	VRN-KT3LB8R2J	J	8.2 3W Metal Film (14D-CMⒶ, CV-2132CK1Ⓐ)	AC
R327	VRN-KT3LB2R7J	J	2.7 3W Metal Film (21D-CK1Ⓐ)	AF
R335	VRD-MN2BE102J	J	1k 1/8W Carbon (21D-CK1Ⓐ)	AA
R336	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R337	VRD-RA2BE471J	J	470 1/8W Carbon	AA
R338	VRD-MN2BE332J	J	3.3k 1/8W Carbon	AA
R339	VRD-MN2BE100J	J	10 1/8W Carbon	AA
R340	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R341	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R342	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R343	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R389	VRD-MN2BE682J	J	6.8k 1/8W Carbon	AA
R402	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R403	VRD-MN2BE561J	J	560 1/8W Carbon	AA
R404	VRD-MN2BE561J	J	560 1/8W Carbon	AA
R503	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R504	VRD-RA2BE102J	J	1k 1/8W Carbon	AA
R505	VRD-MN2BE471J	J	470 1/8W Carbon	AA
R506	VRD-RA2BE152J	J	1.5k 1/8W Carbon	AA
R508	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R509	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R510	VRD-RA2BE272J	J	2.7k 1/8W Carbon	AA
R512	VRD-RM2HD331J	J	330 1/2W Carbon	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
⚠ R513	RR-XZ0035TAZZ	J	22 1/4W Fuse Resistor	AB
R514	VRD-RM2HD102J	J	1k 1/2W Carbon	AA
R515	VRD-RM2HD102J	J	1k 1/2W Carbon	AA
R516	VRD-RM2HD102J	J	1k 1/2W Carbon	AA
R517	VRD-MN2BE393J	J	39k 1/8W Carbon	AA
R518	VRD-MN2BE273J	J	27k 1/8W Carbon	AA
R519	VRD-RM2HD222J	J	2.2k 1/2W Carbon	AA
R520	VRD-RA2BE473J	J	47k 1/8W Carbon	AA
R521	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R522	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R523	*See Controls*			
R524	VRD-MN2BE273J	J	27k 1/8W Carbon	AA
R525	VRD-RM2HD1R2J	J	1.2 1/2W Carbon	AA
R526	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R527	*See Controls*			
R528	VRD-MN2BE473J	J	47k 1/8W Carbon	AA
R529	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R530	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R531	VRD-MN2BE683J	J	68k 1/8W Carbon	AA
R532	VRD-MN2BE223J	J	22k 1/8W Carbon	AA
R533	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R534	VRD-RA2BE272J	J	2.7k 1/8W Carbon	AA
R535	VRD-RM2HD470J	J	47 1/2W Carbon	AA
R536	VRD-RA2BE333J	J	33k 1/8W Carbon	AA
R537	VRD-RA2BE333J	J	33k 1/8W Carbon	AA
R538	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R539	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
⚠ R540	RR-XZ0029CEZZ	J	3.3 1/2W Fuse Resistor	AB
R542	VRD-MN2BE272J	J	2.7k 1/8W Carbon	AA
R602	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R603	VRD-MN2BE472J	J	4.7k 1/8W Carbon	AA
R605	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R606	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R607	VRD-MN2BE561J	J	560 1/8W Carbon	AA
R608	VRD-MN2BE221J	J	220 1/8W Carbon	AA
R609	VRD-MN2BE154J	J	150k 1/8W Carbon	AA
R610	VRW-KX3NC100K	J	10 7W Cement (14D-CMⒶ)	AE
R610	VRW-KX4AC120K	J	12 10W Cement (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AD
⚠ R611	RR-XZ0073CEZZ	J	270 1/2W Fuse Resistor (14D-CMⒶ)	AB
⚠ R611	RR-XZ0020CEZZ	J	39 1/4W Fuse Resistor (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
R612	VRD-RM2HD390J	J	39 1/2W Carbon (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
R613	VRD-RM2HD222J	J	2.2k 1/2W Carbon	AA
R614	VRD-RM2HD223J	J	22k 1/2W Carbon	AA
R615	VRD-RM2HD562J	J	5.6k 1/2W Carbon	AA
R616	VRN-RV3AB1R2J	J	1.2 1W Metal Film (14D-CMⒶ)	AB
R616	VRN-RV3DB1R8J	J	1.8 2W Metal Film (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
R617	VRD-RA2EE101J	J	100 1/4W Carbon	AA

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R618	VRD-RA2EE101J	J	100 1/4W Carbon	AA
R619	VRD-RM2HD184J	J	180k 1/2W Carbon	AA
R620	VRD-RA2EE223J	J	22k 1/4W Carbon	AA
⚠ R621	VRC-MA2HG562K	J	5.6k 1/2W Solid	AA
R622	VRD-RM2HD102J	J	1k 1/2W Carbon	AA
R623	VRD-RA2BE183J	J	18k 1/8W Carbon	AA
R624	VRD-MN2BE222J	J	2.2k 1/8W Carbon	AA
			(14D-CMⒶ)	
R624	VRD-MN2BE152J	J	1.5k 1/8W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R625	VRD-RA2EE125J	J	1.2M 1/4W Carbon	AA
R626	VRD-MN2BE224J	J	220k 1/8W Carbon	AA
R627	VRD-MN2BE393J	J	39k 1/8W Carbon	AA
			(14D-CMⒶ)	
R627	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R628	VRD-MN2BE564J	J	560k 1/8W Carbon	AA
R629	VRD-RA2BE273J	J	27k 1/8W Carbon	AA
R630	VRD-MN2BE221J	J	220 1/8W Carbon	AA
R631	VRD-MN2BE681J	J	680 1/8W Carbon	AA
R632	VRD-RM2HD392J	J	3.9k 1/2W Carbon	AA
			(14D-CMⒶ)	
R632	VRD-RM2HD472J	J	4.7k 1/2W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R634	VRD-RM2HD3R3J	J	3.3 1/2W Carbon	AA
R635	VRD-RM2HD560J	J	56 1/2W Carbon	AA
R636	VRD-RA2BE223J	J	22k 1/8W Carbon	AA
R637	VRD-RA2BE223J	J	22k 1/8W Carbon	AA
R638	VRD-RM2HD221J	J	220 1/2W Carbon	AA
			(14D-CMⒶ)	
R639	VRD-RM2HD390J	J	39 1/2W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R640	VRD-RA2BE223J	J	22k 1/8W Carbon	AA
R641	VRD-RA2BE223J	J	22k 1/8W Carbon	AA
R642	VRD-RA2BE683J	J	68k 1/8W Carbon	AA
R643	VRD-MN2BE223J	J	22k 1/8W Carbon	AA
R646	VRD-RA2BE153J	J	15k 1/8W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R647	VRD-MN2BE393J	J	39k 1/8W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R648	VRD-RA2BE1R0J	J	1 1/8W Carbon	AA
R653	VRD-MN2BE684J	J	680k 1/8W Carbon	AA
R654	VRS-SV3LB472J	J	4.7k 3W Metal Oxide	AC
			(14D-CMⒶ)	
R654	VRS-SV3LB392J	J	3.9k 3W Metal Oxide	AC
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R655	VRS-VV3DB153J	J	15k 2W Metal Oxide	AA
R663	VRD-RA2BE222J	J	2.2k 1/8W Carbon	AA
R664	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R665	VRD-RA2EE104J	J	100k 1/4W Carbon	AA
R668	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R669	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R670	VRD-RA2BE103J	J	10k 1/8W Carbon	AA
R672	VRS-KT3LB121J	J	120 3W Metal Oxide	AD
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R673	VRD-RA2BE221J	J	220 1/8W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R674	VRD-RM2HD100J	J	10 1/2W Carbon	AA
			(14D-CMⒶ)	
R674	VRN-VV3AB8R2J	J	8.2 1W Metal Film	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R675	VRD-RM2HD271J	J	270 1/2W Carbon	AA
			(14D-CMⒶ)	
R675	VRD-RM2HD122J	J	1.2k 1/2W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R676	VRD-RA2EE471J	J	470 1/4W Carbon	AA
			(14D-CMⒶ)	
R676	VRD-RA2EE102J	J	1k 1/4W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
R677	VRD-RM2HD3R3J	J	3.3 1/2W Carbon	AA
			(21D-CK1Ⓐ, CV-2132CK1Ⓐ)	
⚠ R702	VRW-KV3HC6R8K	J	6.8 5W Cement	AC
⚠ R703	VRS-KT3LB273J	J	27k 3W Metal Oxide	AD
⚠ R704	VRS-VV3DB220J	J	22 2W Metal Oxide	AA
			(14D-CMⒶ)	
⚠ R704	VRN-RV3DB4R7J	J	4.7 2W Metal Film	AB
			(21D-CK1Ⓐ)	
⚠ R704	VRS-VV3DB100J	J	10 2W Metal Oxide	AA
			(CV-2132CK1Ⓐ)	
⚠ R705	VRD-RM2HD150J	J	15 1/2W Carbon	AA
			(14D-CMⒶ)	
⚠ R705	VRS-VV3AB100J	J	10 1W Metal Oxide	AA
			(21D-CK1Ⓐ)	
⚠ R705	VRD-RM2HD2R2J	J	2.2 1/2W Carbon	AA
			(CV-2132CK1Ⓐ)	
⚠ R706	VRD-RA2BE124J	J	120k 1/8W Carbon	AA
			(14D-CMⒶ, CV-2132CK1Ⓐ)	
⚠ R706	VRD-RA2BE474J	J	470k 1/8W Carbon	AA
			(21D-CK1Ⓐ)	
⚠ R707	VRD-MN2BE390J	J	39 1/8W Carbon	AA
			(14D-CMⒶ, CV-2132CK1Ⓐ)	
⚠ R707	VRD-MN2BE270J	J	27 1/8W Carbon	AA
			(21D-CK1Ⓐ)	
⚠ R708	VRS-SV3LB124J	J	120k 3W Metal Oxide	AC
⚠ R710	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
⚠ R711	*See Controls*			
⚠ R712	VRD-MN2BE681J	J	680 1/8W Carbon	AA
⚠ R713	VRD-RA2EE225J	J	2.2M 1/4W Carbon	AA
⚠ R714	VRD-RA2BE184J	J	180k 1/8W Carbon	AA
			(14D-CMⒶ)	
⚠ R714	VRD-RA2BE224J	J	220k 1/8W Carbon	AA
			(21D-CK1Ⓐ)	
⚠ R714	VRD-RA2BE124J	J	120k 1/8W Carbon	AA
			(CV-2132CK1Ⓐ)	
⚠ R715	VRD-MN2BE103J	J	10k 1/8W Carbon	AA

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
⚠ R716	VRD-RA2BE180J	J	18 1/8W Carbon	AA
⚠ R717	VRD-RA2BE101J	J	100 1/8W Carbon	AA
⚠ R718	VRN-VV3ABR22J	J	0.22 1W Metal Film	AA
⚠ R719	VRC-UA2HG825K	J	8.2M 1/2W Solid	AA
⚠ R720	VRC-UA2HG825K	J	8.2M 1/2W Solid	AA
⚠ R721	VRD-RM2HD1R0J	J	1 1/2W Carbon (21D-CK1Ⓐ)	AA
⚠ R722	VRN-SV2HCR27J	J	0.27 1/2W Metal Film (21D-CK1Ⓐ)	AA
⚠ R723	VRS-SV3LB272J	J	2.7k 3W Metal Oxide	AD
⚠ R724	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
⚠ R725	VRD-MN2BE820J	J	82 1/8W Carbon	AA
⚠ R735	VRD-RM2HD184J	J	180k 1/2W Carbon	AA
⚠ R736	VRD-RM2HD184J	J	180k 1/2W Carbon	AA
R801	VRD-MN2BE332J	J	3.3k 1/8W Carbon	AA
R803	VRD-MN2BE561J	J	560 1/8W Carbon	AA
R804	VRD-RA2BE561J	J	560 1/8W Carbon	AA
R805	VRD-MN2BE561J	J	560 1/8W Carbon	AA
R806	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R807	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R808	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R809	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R810	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R811	VRD-MN2BE561J	J	560 1/8W Carbon	AA
R812	VRD-RA2BE221J	J	220 1/8W Carbon	AA
R813	VRD-RA2BE221J	J	220 1/8W Carbon	AA
R814	VRD-RA2BE221J	J	220 1/8W Carbon	AA
R815	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R816	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R817	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R818	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R819	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R820	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R821	VRD-RA2BE222J	J	2.2k 1/8W Carbon	AA
R822	VRD-RA2BE223J	J	22k 1/8W Carbon	AA
R823	VRD-MN2BE223J	J	22k 1/8W Carbon	AA
R825	VRD-RA2EE474J	J	470k 1/4W Carbon	AA
R828	VRD-RA2BE154J	J	150k 1/8W Carbon (14D-CMⒶ)	AA
R828	VRD-RA2BE683J	J	68k 1/8W Carbon (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
R829	VRD-MN2BE124J	J	120k 1/8W Carbon	AA
R871	VRD-MN2BE333J	J	33k 1/8W Carbon	AA
R901	VRD-MN2BE122J	J	1.2k 1/8W Carbon (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
R906	VRD-MN2BE122J	J	1.2k 1/8W Carbon (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
R907	VRD-RU2EE153J	J	15k 1/4W Carbon (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
R1001	VRD-RM2HD680J	J	68 1/2W Carbon	AA
R1002	VRD-RM2HD680J	J	68 1/2W Carbon	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1003	VRD-RA2EE102J	J	1k 1/4W Carbon	AA
R1004	VRD-RA2BE103J	J	10k 1/8W Carbon (14D-CMⒶ)	AA
R1004	VRD-RA2BE562J	J	5.6k 1/8W Carbon (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
R1005	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1006	VRD-MN2BE473J	J	47k 1/8W Carbon	AA
R1007	VRD-RA2BE562J	J	5.6k 1/8W Carbon	AA
R1008	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R1009	VRD-MN2BE472J	J	4.7k 1/8W Carbon	AA
R1010	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1011	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1012	VRD-RA2BE333J	J	33k 1/8W Carbon	AA
R1014	VRD-RA2BE562J	J	5.6k 1/8W Carbon	AA
R1015	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R1016	VRD-RA2BE563J	J	56k 1/8W Carbon	AA
R1017	VRD-RA2BE273J	J	27k 1/8W Carbon	AA
R1018	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
R1019	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R1021	VRD-RA2BE562J	J	5.6k 1/8W Carbon	AA
R1022	VRD-MN2BE562J	J	5.6k 1/8W Carbon (14D-CMⒶ, CV-2132CK1Ⓐ)	AA
R1022	VRD-MN2BE272J	J	2.7k 1/8W Carbon (21D-CK1Ⓐ)	AA
R1023	VRD-MN2BE562J	J	5.6k 1/8W Carbon (14D-CMⒶ, CV-2132CK1Ⓐ)	AA
R1023	VRD-MN2BE272J	J	2.7k 1/8W Carbon (21D-CK1Ⓐ)	AA
R1024	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R1025	VRD-RA2BE102J	J	1k 1/8W Carbon	AA
R1026	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R1027	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R1028	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1029	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1030	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1031	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1032	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1033	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1034	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1035	VRD-MN2BE152J	J	1.5k 1/8W Carbon	AA
R1036	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R1037	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R1038	VRD-RA2BE392J	J	3.9k 1/8W Carbon	AA
R1039	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R1040	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R1041	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1042	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1043	VRD-RA2EE821J	J	820 1/4W Carbon	AA
R1044	VRD-RA2BE271J	J	270 1/8W Carbon	AA
R1045	VRD-MN2BE223J	J	22k 1/8W Carbon	AA
R1046	VRD-RA2EE181J	J	180 1/4W Carbon	AA
R1047	VRD-RA2EE271J	J	270 1/4W Carbon	AA
R1055	VRD-MN2BE101J	J	100 1/8W Carbon	AA
R1061	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA

PWB-A DUNTK8600WEV3/V0/V1
MOTHER UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1062	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
R1064	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
R1066	VRD-RA2BE563J	J	56k 1/8W Carbon	AA
R1067	VRD-RA2BE563J	J	56k 1/8W Carbon	AA
R1069	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
R1071	VRD-MN2BE102J	J	1k 1/8W Carbon	AA
R1072	VRD-RA2BE273J	J	27k 1/8W Carbon	AA
R1073	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
R1074	VRD-MN2BE563J	J	56k 1/8W Carbon	AA
R1075	VRD-MN2BE273J	J	27k 1/8W Carbon	AA
R1076	VRD-RA2BE563J	J	56k 1/8W Carbon (21D-CK1Ⓐ)	AA
R1077	VRD-RA2BE563J	J	56k 1/8W Carbon	AA
R1078	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1079	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1080	VRD-MN2BE562J	J	5.6k 1/8W Carbon	AA
R1081	VRD-MN2BE562J	J	5.6k 1/8W Carbon (14D-CMⒶ, CV-2132CK1Ⓐ)	AA
R1081	VRD-MN2BE272J	J	2.7k 1/8W Carbon (21D-CK1Ⓐ)	AA
R1082	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R1083	VRD-MN2BE103J	J	10k 1/8W Carbon	AA
R1084	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R1086	VRD-RA2BE103J	J	10k 1/8W Carbon	AA
R1087	VRD-MN2BE153J	J	15k 1/8W Carbon	AA
R1088	VRD-RA2BE822J	J	8.2k 1/8W Carbon	AA
R1089	VRD-RA2BE153J	J	15k 1/8W Carbon	AA
R1090	VRD-RA2BE123J	J	12k 1/8W Carbon	AA
R1091	VRD-RA2EE153J	J	15k 1/4W Carbon	AA
R1092	VRD-RA2BE333J	J	33k 1/8W Carbon	AA
R1093	VRD-MN2BE333J	J	33k 1/8W Carbon	AA
R1094	VRD-MN2BE684J	J	680k 1/8W Carbon	AA
R1096	VRD-MN2BE563J	J	56k 1/8W Carbon	AA

SWITCHES

Ref. No.	Part No.	★	Description	Code
S501	QSW-B0015CEZZ	J	Vertical Center Adj.	AC
⚠ S701	QSW-P0566CEZZ	J	Power	AL
S1001	QSW-K0079GEZZ	J	Channel Up	AB
S1002	QSW-K0079GEZZ	J	Channel Down	AB
S1003	QSW-K0079GEZZ	J	Volume Up	AB
S1004	QSW-K0079GEZZ	J	Volume Down	AB
S1005	QSW-K0079GEZZ	J	Pre-Set	AB
S1006	QSW-K0079GEZZ	J	Mode	AB
S1007	QSW-K0079GEZZ	J	Skip	AB
S1008	QSW-B0015CEZZ	J	Set-Up Mode	AC

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
CN401	QCNW-1290PEZZ	J	Connecting Wire	AK
CN601	QCNW-0430PEZZ	J	Connecting Wire	AC
⚠ F300	QFS-J1221TAZZ	J	IC Protector (14D-CMⒶ)	AE
⚠ F300	QFS-J2521GEZZ	J	IC Protector (21D-CK1Ⓐ)	AE
⚠ F300	QFS-J1021CEZZ	J	IC Protector (CV-2132CK1Ⓐ)	AE
⚠ F701	QFS-C3224CEZZ	J	Fuse, T3.15A	AD
FB305	RBLN-0037CEZZ	J	Ferrite Bead	AB
FB601	RBLN-0037CEZZ	J	Ferrite Bead	AB
⚠ FB603	RBLN-0036CEZZ	J	Ferrite Bead	AB
⚠ FB701	RBLN-0037CEZZ	J	Ferrite Bead (14D-CMⒶ)	AB
⚠ FB701	RBLN-0010CEZZ	J	Ferrite Bead (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AC
⚠ FB702	RBLN-0037CEZZ	J	Ferrite Bead	AB
FB731	RBLN-0010CEZZ	J	Ferrite Bead	AC
⚠ FH701	QFSHD1009CEZZ	J	Fuse Holder, for F701	AA
⚠ FH702	QFSHD1010CEZZ	J	Fuse Holder, for F701	AA
⚠ J401	QJAKF0011CEZZ	J	Jack, AV Input	AG
P201	QPLGN0241CE04	J	Plug 2-pin, (TP201)	AA
P301	QPLGN0241CEZZ	J	Plug 2-pin, (S) (14D-CMⒶ, CV-2132CK1Ⓐ)	AA
P308	QPLGN0441CEZZ	J	Plug 4-pin, (S2) (21D-CK1Ⓐ)	AB
P401	QPLGN0461CEZZ	J	Plug 4-pin, (VA)	AB
P603	QPLGN0441CEZZ	J	Plug 4-pin, (H) (14D-CMⒶ)	AB
P603	QPLGN0461CEZZ	J	Plug 4-pin, (H) (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
P604	QPLGN0505CEZZ	J	Plug 5-pin, (F)	AB
P605	QPLGN0207CEZZ	J	Plug 2-pin, H-Size (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AA
P606	QPLGN0160CEZZ	J	Plug 1-pin, (L3) (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AB
⚠ P711	QPLGN0207CEZZ	J	Plug 2-pin, (G)	AA
⚠ P712	QPLGN0304CEZZ	J	Plug 3-pin, (A)	AB
P801	QPLGN0561CEZZ	J	Plug 5-pin, (K)	AB
P1001	QPLGN0441CE04	J	Plug 4-pin, (BC)	AA
RMC1001	RRMCU0210CEZZ	J	Remote Control Receiver (14D-CMⒶ)	AK
RMC1001	RRMCU0215CEZZ	J	Remote Control Receiver (21D-CK1Ⓐ, CV-2132CK1Ⓐ)	AN
	LHLDP1017PE00	R	LED Holder	AB

— End of PWB-A —

Ref. No.	Part No.	★	Description	Code

PWB-C DUNTK8598WEV0
CRT SOCKET UNIT
(14D-CMⒶ)

TRANSISTORS

Q851	VS2SC2229O/1E	J	2SC2229(O)	AD
Q852	VS2SC2229O/1E	J	2SC2229(O)	AD
Q853	VS2SC2229O/1E	J	2SC2229(O)	AD
Q854	VS2SA1015Y/1E	J	2SA1015(Y)	AC

DIODE

D851	VHD1SS119//1E	J	1SS119	AA

COIL

L851	VP-CF681K0000	J	680μH	AB

CAPACITORS

C851	VCKYD41HB391K	J	390p 50V Ceramic	AA
C852	VCKYD41HB331K	J	330p 50V Ceramic	AA
C853	VCKYD41HB391K	J	390p 50V Ceramic	AA
C854	RC-KZ015JCEZZ	J	0.01 1.5kV Ceramic	AB
C855	VCEAGA2DW106M	J	10 200V Electrolytic	AC
C859	VCKYD41CY103N	J	0.01 16V Ceramic	AA
C861	VCEAGA1CW336M	J	33 16V Electrolytic	AB
C865	VCKYPA2HB102K	J	1000p 500V Ceramic	AA
C867	VCEAGA1CW107M	J	100 16V Electrolytic	AB
C870	VCEAGA1CW106M	J	10 16V Electrolytic	AA

RESISTORS

R851	VRD-RA2BE561J	J	560 1/8W Carbon	AA
R852	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R855	VRD-RM2HD272J	J	2.7k 1/2W Carbon	AA
R856	VRD-RA2BE561J	J	560 1/8W Carbon	AA
R858	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R860	VRS-VV3DB123J	J	12k 2W Metal Oxide	AA
R861	VRD-RM2HD272J	J	2.7k 1/2W Carbon	AA
R862	VRD-RA2BE561J	J	560 1/8W Carbon	AA
R866	VRS-VV3DB123J	J	12k 2W Metal Oxide	AA
R867	VRD-RM2HD272J	J	2.7k 1/2W Carbon	AA
R868	VRS-VV3DB123J	J	12k 2W Metal Oxide	AA
R874	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R875	VRD-RA2BE560J	J	56 1/8W Carbon	AA
R876	VRD-RA2BE560J	J	56 1/8W Carbon	AA
R877	VRD-RA2BE560J	J	56 1/8W Carbon	AA
R878	VRD-RA2BE471J	J	470 1/8W Carbon	AA
R879	VRD-RA2BE272J	J	2.7k 1/8W Carbon	AA
R880	VRD-RA2BE101J	J	100 1/8W Carbon	AA
R881	VRD-RA2BE152J	J	1.5k 1/8W Carbon	AA

MISCELLANEOUS PARTS

P851	QPLGN0341CEZZ	J	Plug 3-pin, (H)	AA
P852	QPLGN0541CEZZ	J	Plug 5-pin, (K)	AB
⚠ SC851	QSOCV0829CEZZ	J	CRT Socket	AK

— End of PWB-B (14D-CMⒶ) —

Ref. No.	Part No.	★	Description	Code

PWB-C DUNTK8446WEV1
CRT SOCKET UNIT
(21D-CK1Ⓐ and CV-2132CK1Ⓐ)

TRANSISTORS

Q851	VS2SC3417//1E	J	2SC3417	AC
Q852	VS2SC3417//1E	J	2SC3417	AC
Q853	VS2SC3417//1E	J	2SC3417	AC
Q854	VS2SA1015Y/1E	J	2SA1015(Y)	AC

DIODE

D851	VHD1SS119//1E	J	1SS119	AA

COIL

L851	VP-CF681K0000	J	680μH	AB

CAPACITORS

C851	VCKYD41HB391K	J	390p 50V Ceramic	AA
C852	VCKYD41HB391K	J	390p 50V Ceramic	AA
C853	VCKYD41HB391K	J	390p 50V Ceramic	AA
C854	VCEAGA1CW336M	J	33 16V Electrolytic	AB
C855	VCEAGA1CW106M	J	10 16V Electrolytic	AA
C856	VCEAGA2DW106M	J	10 200V Electrolytic	AC
C857	RC-KZ0150CEZZ	J	1000p 3kV Ceramic	AB
C858	VCKYPA2HB102K	J	1000p 500V Ceramic	AA
C859	VCKYD41CY103N	J	0.01 16V Ceramic	AA
C861	VCEAGA1CW107M	J	100 16V Electrolytic	AB

RESISTORS

R851	VRD-RA2BE560J	J	56 1/8W Carbon	AA
R852	VRD-RA2BE560J	J	56 1/8W Carbon	AA
R853	VRD-RA2BE560J	J	56 1/8W Carbon	AA
R854	VRS-VV3DB123J	J	12k 2W Metal Oxide	AA
R855	VRS-VV3DB123J	J	12k 2W Metal Oxide	AA
R856	VRS-VV3DB123J	J	12k 2W Metal Oxide	AA
R857	VRD-RM2HD272J	J	2.7k 1/2W Carbon	AA
R858	VRD-RM2HD272J	J	2.7k 1/2W Carbon	AA
R859	VRD-RM2HD272J	J	2.7k 1/2W Carbon	AA
R860	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R861	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R862	VRD-RA2BE681J	J	680 1/8W Carbon	AA
R863	VRD-RA2BE471J	J	470 1/8W Carbon	AA
R864	VRD-RA2BE471J	J	470 1/8W Carbon	AA
R865	VRD-RA2BE471J	J	470 1/8W Carbon	AA
R866	VRD-RA2BE272J	J	2.7k 1/8W Carbon	AA
R867	VRD-RA2BE152J	J	1.5k 1/8W Carbon	AA
R868	VRD-RA2BE471J	J	470 1/8W Carbon	AA
R869	VRD-RA2BE101J	J	100 1/8W Carbon	AA

MISCELLANEOUS PARTS

P851	QPLGN0541CEZZ	J	Plug 5-pin, (K)	AB
P852	QPLGN0441CEZZ	J	Plug 4-pin, (H)	AB
⚠ SC851	QSOCV0913CEZZ	J	CRT Socket	AK

— End of PWB-B (21D-CK1Ⓐ and CV-2132CK1Ⓐ) —

PWB-D DUNTK8599WEV3/V0
AV UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC2301	VHiM52317SP-1	J	Sound Converter	AK
IC2302	VHiTA7347P/-1	J	Audio Switch	AG
IC2304	VHiUPC358C/-1	J	Operation Amp.	AD
IC2401	VHiLA7956//-1	J	Video Switch	AG

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q2401	VS2SC945AP/-1	J	2SC945A(P)	AB
Q2402	VS2SC945AP/-1	J	2SC945A(P)	AB
Q2403	VS2SC945AP/-1	J	2SC945A(P)	AB

DIODES

Ref. No.	Part No.	★	Description	Code
D2401	RH-EX0041TAZZ	J	Zener Diode, 9.1V	AC
D2402	RH-EX0041TAZZ	J	Zener Diode, 9.1V	AC

COILS

Ref. No.	Part No.	★	Description	Code
CF2301	RFiLC0258CEZZ	J	Ceramic Filter, 6.5 MHz	AD
CF2302	RFiLC0270CEZZ	J	Ceramic Filter, 5.5 MHz	AD
CF2303	RFiLC0268CEZZ	J	Ceramic Filter, 6.0 MHz	AD
CF2305	RFiLA0072CEZZ	J	1 MHz Oscillator	AE
CF2401	RFiLC0150CEZZ	J	5.5/6.0 MHz Trap Coil	AF
CF2402	RFiLC0024CEZZ	J	6.5 MHz Trap Coil	AE
CF2304	RFiLC0228CEZZ	J	Ceramic Filter, 5.74 MHz (14D-CMⒶ)	AF
L2401	VP-DF100K0000	J	Coil, 10μH	AB
L2402	VP-DF150K0000	J	Coil, 15μH	AB
L2403	VP-DF150K0000	J	Coil, 15μH	AB

CAPACITORS

Ref. No.	Part No.	★				Code
C2301	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2302	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2303	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2304	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2305	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C2306	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2307	VCCCPA1HH180J	J	18p	50V	Ceramic	AA
C2308	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2309	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2310	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2311	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C2312	VCEAGA1HW334M	J	0.33	50V	Electrolytic	AA
C2314	VCEAGA1CW476M	J	47	16V	Electrolytic	AB
C2315	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C2317	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C2325	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C2401	VCCCPA1HH820J	J	82p	50V	Ceramic	AA
C2402	VCEAGA1CW476M	J	47	16V	Electrolytic	AB
C2403	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2404	VCCCPA1HH820J	J	82p	50V	Ceramic	AA
C2405	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C2406	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C2409	VCEAGA1CW106M	J	10	16V	Electrolytic	AA
C2410	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2411	VCKYD41CY103N	J	0.01	16V	Ceramic	AA
C2413	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C2414	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2415	VCKYPA1HF103Z	J	0.01	50V	Ceramic	AA
C2416	VCEAGA1HW225M	J	2.2	50V	ELectrolyic	AB
C2419	VCEAGA1CW107M	J	100	16V	Electrolytic	AB

RESISTORS

Ref. No.	Part No.	★				Code
R2301	VRD-RA2BE471J	J	470	1/8W	Carbon	AA
R2302	VRD-RA2BE681J	J	680	1/8W	Carbon	AA
R2303	VRD-RA2BE561J	J	560	1/8W	Carbon	AA
R2304	VRD-RA2B821J	J	820	1/8W	Carbon	AA
R2305	VRD-RA2BE471J	J	470	1/8W	Carbon	AA
R2306	VRD-RA2BE681J	J	680	1/8W	Carbon	AA
R2309	VRD-RA2BE102J	J	1k	1/8W	Carbon	AA
R2310	VRD-RA2BE681J	J	680	1/8W	Carbon	AA
R2312	VRD-RA2BE103J	J	10k	1/8W	Carbon	AA
R2313	VRD-RA2BE182J	J	1.8k	1/8W	Carbon	AA
R2316	VRD-RA2BE153J	J	15k	1/8W	Carbon	AA
R2317	VRD-RA2BE123J	J	12k	1/8W	Carbon	AA
R2320	VRD-RA2BE102J	J	1k	1/8W	Carbon	AA
R2339	VRD-RA2BE471J	J	470	1/8W	Carbon	AA
R2340	VRD-RA2BE122J	J	1.2k	1/8W	Carbon	AA
R2401	VRD-RA2BE181J	J	180	1/8W	Carbon	AA
R2402	VRD-RA2BE681J	J	680	1/8W	Carbon	AA
R2403	VRD-RA2EE391J	J	390	1/4W	Carbon	AA
R2404	VRD-RA2BE331J	J	330	1/8W	Carbon	AA
R2405	VRD-RA2BE222J	J	2.2k	1/8W	Carbon	AA
R2406	VRD-RA2BE472J	J	4.7k	1/8W	Carbon	AA
R2407	VRD-RA2BE122J	J	1.2k	1/8W	Carbon	AA
R2408	VRD-RA2BE122J	J	1.2k	1/8W	Carbon	AA
R2409	VRD-RA2BE101J	J	100	1/8W	Carbon	AA
R2410	VRD-RA2BE102J	J	1k	1/8W	Carbon	AA
R2411	VRD-RA2BE331J	J	330	1/8W	Carbon	AA
R2413	VRD-RA2BE563J	J	56k	1/8W	Carbon	AA
R2414	VRD-RA2BE333J	J	33k	1/8W	Carbon	AA
R2417	VRD-RA2BE151J	J	150	1/8W	Carbon	AA
R2418	VRD-RA2BE564J	J	560k	1/8W	Carbon	AA
R2419	VRD-RA2BE100J	J	10	1/8W	Carbon	AA
R2420	VRD-RA2BE101J	J	100	1/8W	Carbon	AA
R2421	VRD-RA2BE471J	J	470	1/8W	Carbon	AA
⚠ R2426	RR-XZ0026CEZZ	J	10	1/4W	Fuse Resistor	AB
⚠ R2427	RR-XZ0026CEZZ	J	10	1/4W	Fuse Resistor	AB
R2431	VRD-RA2EE750J	J	75	1/4W	Carbon	AA
R2433	VRD-RA2BE101J	J	100	1/8W	Carbon	AA
R2435	VRD-RA2BE564J	J	560k	1/8W	Carbon	AA
R2445	VRD-RA2BE182J	J	1.8k	1/8W	Carbon	AA

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
P2401	QPLGZ0807GEZZ	J	Plug 8-pin, (YA)	AC
P2402	QPLGZ0607GEZZ	J	Plug 6-pin, (YB)	AC
P2403	QPLGN0461CEZZ	J	Plug 4-pin, (VA)	AB

—— End of PWB-D ——

Ref. No.	Part No.	★	Description	Code

MISCELLANEOUS PARTS

CN301	QCNW-1240PEZZ	R	Connecting Wire, Speaker (14D-CMⒶ)	AE
CN851	QCNW-1341PEZZ	R	Connecting Wire, (H) (14D-CMⒶ)	AF
CN852	QCNW-1595PEZZ	R	Connecting Wire, (K) (14D-CMⒶ)	AG
	QCNW-1585PEZZ	R	Connecting Wire (21D-CK1Ⓐ)	AH
	QCNW-1496PEZZ	R	Connecting Wire (CV-2132CK1Ⓐ)	AE
	QCNW-1626PEZZ	R	Connecting Wire (21D-CK1Ⓐ,CV-2132CK1Ⓐ)	AH
SP1	VSP0010P-Q0WA	J	Speaker (14D-CMⒶ)	AN
SP1	VSP9050PB06WA	R	Speaker (21D-CK1Ⓐ,CV-2132CK1Ⓐ)	AR
	LHLDW0001PEK0	R	AC Cord Holder (14D-CMⒶ)	AD
	LHLDK0001PEZZ	R	AC Cord Holder (21D-CK1Ⓐ,CV-2132CK1Ⓐ)	AC
⚠ ACC701	QACCZ2001PESA	R	AC Cord	AN

—— End of MISCELLANEOUS PARTS ——

PACKING PARTS
(NOT REPLACEMENT ITEM)

14D-CMⒶ

SPAKC5937PEZZ	–	Packing Case	—
SPAKP0055PEZZ	–	Polystyrene Mat	—
SPAKX0390PEZZ	–	Packing Material	—
TLABK0002PEZZ	–	Number Card	—

21D-CK1Ⓐ

SPAKC5932PEZZ	–	Packing Case	—
SPAKP0055PEZZ	–	Polystyrene Mat	—
SPAKX0393PEZZ	–	Packing Material	—
TLABK0002PEZZ	–	Number Card	—

CV-2132CK1Ⓐ

SPAKC5930PEZZ	–	Packing Case	—
SPAKP0055PEZZ	–	Polystyrene Mat	—
SPAKX0393PEZZ	–	Packing Material	—
TLABK0002PEZZ	–	Number Card	—

—— End of PACKING PARTS ——

Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESSORIES

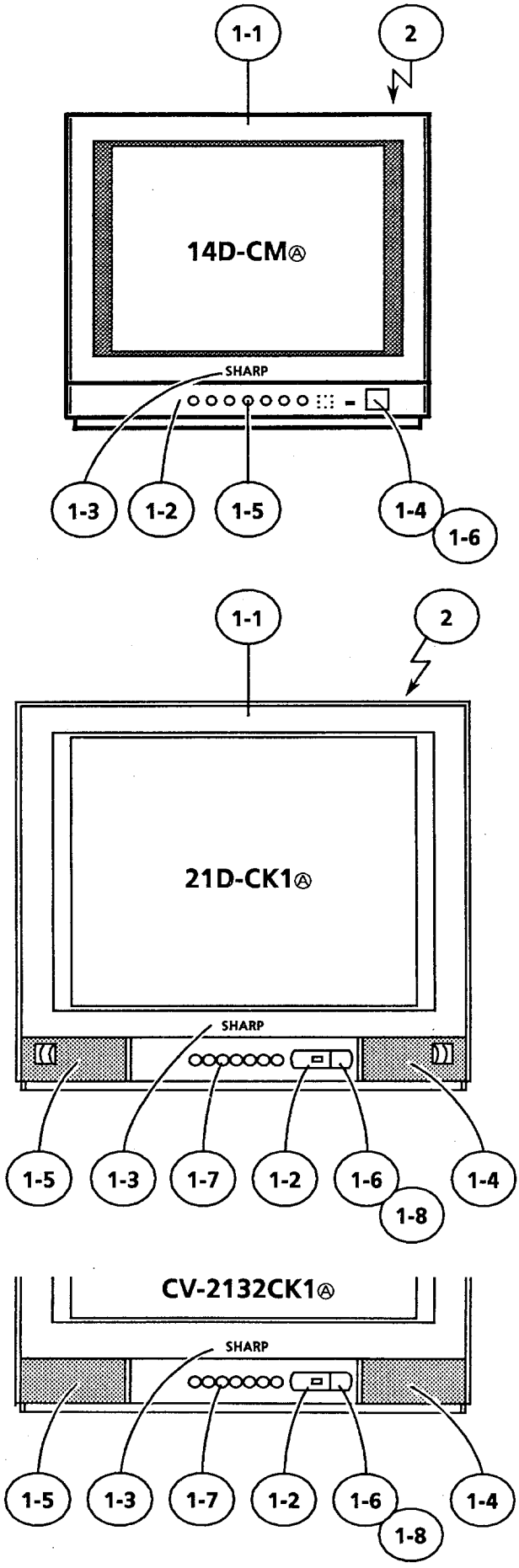
ACCESSORIES

QPLGJ0113CEZZ	J		Antenna Plug, 75—300Ω (14D-CMⒶ)	AG
RRMCG1077PESA	R		Infrared Remote Control Unit	AW
TINS-5497PEZZ	R		Operation Manual (14D-CMⒶ)	AF
TINS-5485PEZZ	R		Operation Manual (21D-CK1Ⓐ)	AF
TINS-5486PEZZ	R		Operation Manual (CV-2132CK1Ⓐ)	AF

ACCESSORIES (*NOT REPLACEMENT ITEM*)

TMAPC3932PEZZ	–	Service Map (14D-CMⒶ)	—
TMAPC3927PEZZ	–	Service Map (21D-CK1Ⓐ)	—
TMAPC3928PEZZ	–	Service Map (CV-2132CK1Ⓐ)	—
UBATU0023GEZZ	–	Dry Batteries, Size AAA (2 pcs.)	—

—— End of SUPPLIED ACCESSORIES ——



CABINET PARTS

MODEL 14D-CMⒶ

Ref. No.	Part No.	★	Description	Code
1	CCABA2204WEV2	R	Cabinet Ass'y, Front	BC
1-1	*Not available*	–	Cabinet, Front	—
1-2	GMADT0145PESA	R	Window Cover	AN
1-3	HBDGB3110CESA	J	Badge, "SHARP"	AG
1-4	JBTN-0152PESA	R	Button, Power	AD
1-5	JBTN-0116PESA	R	Buttons, Up/Down Controls	AG
1-6	MSPRC0008PEFW	R	Spring, Power Button	AB
2	CCABB2167WEV0	R	Cabinet Ass'y, Rear	AX
3	QANTR0018PEZZ	R	Rod Antenna, Dipole	AQ

MODEL 21D-CK1Ⓐ

Ref. No.	Part No.	★	Description	Code
1	CCABA2257WEV0	R	Cabinet Ass'y, Front	BL
1-1	*Not available*	–	Cabinet, Front	—
1-2	GMADT0139PESA	R	Window Cover	AF
1-3	HBDGB0015PESA	R	Badge, "SHARP"	AE
1-4	*Not available*	–	Punching Plate, Right	—
1-5	*Not available*	–	Punching Plate, Left	—
1-6	JBTN-0144PESA	R	Button, Power	AE
1-7	JBTN-0118PESA	R	Buttons, Up/Down Controls	AG
1-8	MSPRC0068CEFW	J	Spring, Power Button	AA
2	CCABB2174WEV0	R	Cabinet Ass'y, Rear	BD

MODEL CV-2132CK1Ⓐ

Ref. No.	Part No.	★	Description	Code
1	CCABA2258WEV0	R	Cabinet Ass'y, Front	BL
1-1	*Not available*	–	Cabinet, Front	—
1-2	GMADT0139PESA	R	Window Cover	AF
1-3	HBDGB0015PESB	R	Badge, "SHARP"	AE
1-4	*Not available*	–	Punching Plate, Right	—
1-5	*Not available*	–	Punching Plate, Left	—
1-6	JBTN-0144PESA	R	Button, Power	AE
1-7	JBTN-0118PESA	R	Buttons, Up/Down Controls	AG
1-8	MSPRC0068CEFW	J	Spring, Power Button	AA
2	CCABB2174WEV0	R	Cabinet Ass'y, Rear	BD

—— End of CABINET PARTS ——

Memo

14D-CMⒶ, 21D-CK1Ⓐ
CV-2132CK1Ⓐ

SHARP

T9815-S
Printed in Japan
在日本印刷
(W/S) MW. KD